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ABSTRACT

In response to the growing importance of information issues in regional, national, and international forums, these papers on information policy were prepared by National Telecommunications and Information Administration consultants and staff members during 1979 and 1980 to provide a foundation for review, public analysis, and debate. Two types of information policies are discussed. Those dealing with the flow and controls of information include constitutional and statutory policies for permitting, requiring, or inhibiting the availability of information, while economic policies are concerned with the distribution of information or inhibiting, managing, and facilitating its distribution to certain sectors of society. Both types are considered with emphasis on the federal government's various roles in making, administering, and enforcing such policies. Topics covered include information dissemination, access, privacy, market characteristics, pricing, and management. Examples of international information policy issues and an extensive list of references for each paper are provided. (RBF)

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ISSUES IN INFORMATION POLICY

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FOREWORD

What is information policy? Recent vigorous debate on such issues as privacy, trans-border data flows, government data access, and intellectual property has led some thinkers and planners to seek a general philosophy to determine these and similar policy issues. But there is no general definition of the term "information policy." Some feel that it is an abstract phrase; others concede that the need for information policies is valid, but cannot decide whether or not there should be a national information policy.

Many informed observers agree that information policy issues are growing in importance in regional, national and international forums, and thus demand a broader range of more sophisticated debate. This collection of issue papers, which focus on subjects integral to most information policy discussions, is intended to provide a foundation from which creative analysis or debate can proceed.

These papers were prepared by NTIA consultants and staff during 1979 and 1980. The intention of NTIA in having these policy issues analyzed and developed was to gather background information that could help with identification and illustration of some of the most salient issues in information policy. This exercise was part of a broader effort aimed at determining which of these issues should be addressed by public policy makers.

The reader should remember that because of the scope and complexity of the topic, these issue papers do not attempt to cover every aspect of information policy, and that any analysis of this type is bound to be somewhat controversial. Although NTIA staff members were involved with several reviewers and consultants in attempting to refine the analyses, there has been no attempt to reach policy consensus within NTIA on the issues which the papers raise. In some cases, material is included which does not necessarily reflect current thinking in the field. In other cases, the topics treated are those in which NTIA has little expertise or policy interest, or on which NTIA would place a different policy priority than that implied by the authors' emphasis.

These papers cannot, therefore, be interpreted as an official statement of the information policies of NTIA, of the Department of Commerce, or of the United States Government. The papers contain the collective thoughts of a small group of individuals whose ideas were intended to stimulate the thinking of others, as well as to develop new points of view on information policy issues. The National Telecommunications and Information Administration is publishing this collection not as a policy document, but as a special publication intended to encourage informed debate on the subjects discussed.

Despite these caveats, this two-part collection of recent information policy analysis should serve as a basis for scholarly review, public scrutiny and debate. As these papers have succeeded in stimulating our thinking on controversial topics, we hope they will stimulate yours, and thus beneficially widen the debate on information policy.

Edward K. Zimmerman
Deputy Assistant Secretary for
Communications and Information

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To all of those who collaborated to make a book of this scope and complexity possible, I would like to express my thanks. Through a two-year period during which much rewriting and editing occurred, all of those involved in the project showed great patience and understanding.

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Finally, my deep appreciation goes to Frances Sills, whose expert typing and unfailing equanimity provided several separate versions of each of the chapters before the manuscript was ready for printing. Without her superb assistance, ***Issues in Information Policy*** would never have reached its final form.

Jane H. Yurow
Project Director

INTRODUCTION

Information Policy Issues

Information policies are becoming increasingly important as a result of the great technological changes that have occurred in the twentieth century. Such policies dealing with the flow of information and with the controls which are sometimes necessary to direct that flow, fall into two general categories.

The first category of information policies addressed in this report encompasses the constitutional and statutory policies for permitting, requiring, or inhibiting the availability and accessibility of information. These policies set out the legal conditions to be met and rights to be respected, whether information is distributed as a public service or through market mechanisms.

The second category of information policies focuses on economic policies for distributing information or for inhibiting, managing and facilitating its distribution to certain sectors of society. These policies set out the laws and economic principles that have a significant impact on the workings of information markets, and on the management of information flows.

This report discusses aspects of these two broad categories of policies with emphasis on the Federal Government's various roles in making, administering and enforcing information policy. Part One contains an analysis of fundamental policies, and includes discussions on the legal foundations of information dissemination and access policies. A detailed discussion of privacy of information illustrates these policies. Part Two analyzes economic policies and includes discussions of the characteristics of information and of information markets, the pricing of information, the role of the Federal Government in information markets and in the creation of information for the marketplace. A discussion of the management of information within organizations, with emphasis on federal policies and practices, is also included in Part Two.

Addressing international information policy issues does not fall within the scope of this report because the depth, complexity, and visibility of international policies necessitate a separate discussion. This report, however, does attempt to analyze U.S. domestic information policies, and in so doing should generate greater understanding of the fundamental legal and economic considerations upon which international information policy must be formulated. Since U.S. domestic information policies are often substantially different from the information policies of other countries, American policies in the international sphere inevitably represent efforts to balance and reconcile the needs of U.S. domestic and international information policies with the diverse needs of those policies in other countries.

PART ONE

How Information Policies Affect Individual Liberties and Societal Welfare

The basic presumption underlying U.S. information policy is open availability of and ease of access to information which is of interest to or concerns the welfare of American citizens. The concept of "availability" of information involves its existence in a passive context; in other words, the information may be available without the public having ready access to it. The concept of "accessibility," on the other hand, indicates the existence of mechanisms by which the available information may be procured. Thus, if information is accessible, it must also be available. Of course, in addition to provisions of availability and accessibility, under certain circumstances U.S. policy also contains significant limitations on these rights.

The conflict between openness and restriction in information policy reflects a basic tension among the government's conflicting roles in protecting civil liberties, which include individual and corporate property rights, while at the same time promoting societal welfare. Policies such as those expressed in the First Amendment's prohibition of government interference with free speech and press, and those found in the Freedom of Information Act, promote civil and individual liberties. Equally legitimate policies restrict the scope of the First Amendment by allowing the government to limit dissemination of and access to certain kinds of information (e.g., national security, obscene, and commercial information). These policies enable the government to protect society against certain widely perceived threats.

Conversely, certain policies permit compulsory access, particularly by government agencies, to information held either by individuals or private organizations as well as by other government agencies, when the information is necessary to provide for the societal welfare. Some policies limiting access are intended to protect civil liberties or individual or corporate property rights (e.g., privacy, proprietary information).

In the first three chapters, the elements of this fundamental tension between individual liberties, proprietary interests, and societal welfare are considered in some detail in the context of policies about openness and restriction of information flows. Many significant issues are raised regarding the intent and effectiveness of current policies about dissemination and access, as well as about the continuing utility of these policies in an era of sophisticated, integrated information technologies and services. Although dissemination and access are virtually inseparable as concepts, the report separates them into two chapters in order to simplify discussion and analysis of issues. The third chapter examines information privacy policy, a field which illustrates the tensions existing among individual, proprietary, and social welfare interests, described in the first two chapters of Part One.

Dissemination and Access

United States policy generally favors the availability of information, sometimes permitting, sometimes encouraging its availability through dissemination and access policies. Significant federal policies have been developed to address the need for availability and accessibility of information.

The First Amendment, prohibiting government interference with an individual's right to speak or write freely, provides the foundation for U.S. information policy. While there are legal exceptions to the doctrine of free speech expressed in the First Amendment, the Amendment stands for the principle of open information exchange, as well as providing encouragement to individuals and private organizations for the generation and collection of whatever information is of use to them.

The Federal Government fosters public dissemination of information which it generates or maintains. For example, most federal agencies have public information offices which disseminate reports and other materials produced by ongoing programs. In addition, the Government Printing Office and the National Technical Information Service distribute federal publications and reports widely. Federal support for depository libraries through the free distribution of federal documents, as well as through federal subsidies for public libraries and educational institutions, also provides evidence of the government's active encouragement of informatiion dissemination to the public.

In addition, there are policies which compel agencies to disseminate information upon request in order to ensure the right of the public to learn about the workings of the Federal Government. The Freedom of Information Act reflects a bias in favor of disclosing information, with the permissible exceptions specifically stated in the law. The Government in the Sunshine Act encourages federal commissions and regulatory bodies to meet in public and to share materials relating to meetings with anyone requesting them. Here too, the general rule is to have proceedings in public, with the permissible exceptions specifically noted.

U.S. policy encourages diversity in both the source and content of information, based on the premise that such informational diversity will lead to diversity of ideas. The Federal Government has policies to promote greater diversity in the source and content of information used in newspapers, broadcasting, and cable television. These policies promoting diversity of information are evident in the Newspaper Preservation Act, which is intended to encourage competition among newspapers in communities where a chain newspaper would otherwise dominate the market and eventually drive a locally based paper out of business. The broadcast ownership rules, which limit the number of stations one company can own in a given market, are likewise intended to encourage a number of sources in the dissemination of information to a particular audience. The Fairness Doctrine, which makes licensing of broadcast and cable stations dependent on their provision of programs that expose diverse viewpoints on controversial issues, addresses diversity of content directly, with enforcement in this case being one of the few instances of government regulation on the basis of content.

Advances in technology tend to lower the cost of disseminating and receiving information, and consequently tend to increase the opportunity to make information available, promoting greater diversity. But traditional federal policies regarding information dissemination may be inhibiting these opportunities. For example, traditional distinctions between newspaper and broadcast media, in which broadcasting is subject to content regulation to achieve diversity, while newspapers remain unregulated in accordance with the First Amendment prohibition against government interference, may no longer be realistic. As cable and viewdata systems become prevalent and bring an enormous amount of information into the home and office, federal policies concerning the achievement of diversity of source and content may require reexamination. Technological developments are thus blurring traditional lines of distinction that have determined the actions and restrictions of the various media.

Regardless of the medium, certain substantive categories of information are not readily available or accessible. The federal courts have interpreted the prohibition against government interference with free expression to have some limits. These limits are intended to protect certain societal, individual, or proprietary interests generally considered necessary for a stable, well-functioning society. Some significant types of societal interests protected by limiting information availability are:

- The security of society, which is dependent upon the government's effectiveness in carrying out national security or general welfare functions (e.g., military, strategic, foreign policy, and law enforcement information).
- The protection of society from the influence of information that offends social mores or that is deceptive (e.g., pornography, false advertising).
- The protection of personal privacy and of an individual's ability to control his own life to the maximum possible extent (e.g., information about individuals, particularly when held in record systems of large organizations or institutions).

In addition to the substantive limitations, policies may also limit the time, place, or manner in which information can be disseminated or received. The family viewing time arguments within the broadcast industry and the discussions about sex education in the schools are examples of these sorts of limitations.

Whereas public opinion and U.S. policy support the position that information generated by the government should be widely available, in contrast, U.S. policy, reflecting public opinion, generally presumes that information generated or held in the private sector need not be available or accessible, except on terms provided by the person or organization possessing it. Ordinarily, information in the private sector is exchanged for compensation. However, when the government needs privately held information to perform its functions of protecting society or individuals, or to permit more effective or efficient operations on behalf of society, then access to this information is permitted within appropriate restrictions.

Policies permitting or authorizing the Federal Government to gather information from private sources generally indicate with some specificity the information to be collected, and the source, the purpose, and procedures involved, because without such specificity the government would have access to most privately held information, causing two types of potentially adverse consequences. On the one hand, this mass of information could create chaos in federal programs, and could lead to ineffective programs that the information collection was designed to prevent. On the other hand, efficient management and use of information could have the undesirable effect of creating a controlled, nondemocratic society.

Privacy and Fair Information Practices

In one particular case—namely, that of information about individuals—not only do all of the general principles about access and dissemination apply, but additional legal steps are needed to safeguard individuals' rights against potential technological incursions. There is growing recognition both domestically and internationally that information about individuals, particularly recorded information, has unique characteristics which require that it be given special treatment. In addition, there is increasing awareness that the legal protections relating to personal information have not kept pace with social and technological changes, particularly in the United States. Recorded personal information held by large organizations provides an example of a particular category of information in which legislation to protect individuals' rights is lacking.

When the U.S. legal structure was developed, most recorded information of an intimate or revealing nature, such as financial records, was held by the individual, and was generally protected by laws and by the Fourth and Fifth Amendments. Today much personal information is relinquished to organizations, including governments, which demand it in order to provide essential services. In most cases, this information then becomes the property of the recordkeeper, and the individual gives up all legal rights to it. As a result, the individual has little protection against others obtaining and using financial, medical, and other personal information about him, and consequently, he experiences a loss of control over the events and decisions that shape his life. In such cases, legislation has become necessary to establish greater parity between individuals and organizations.

In the United States, privacy policies frequently are based on two principles:

- **Fair Information Practices.** Standards must be provided for handling sensitive personal records. Individuals should be told what kind of information is being collected about them, how it will be used, and to whom it will be disclosed. They should be able to see and obtain a copy of the records and correct any errors. They should be told the basis for an adverse decision that may be based on personal data. And they should be able to prevent improper disclosure of their records.

- **Limits on Government.** Government access to and use of personal information must be limited and supervised so that power over information cannot be used to threaten individul liberties.

U.S. policy is also beginning to be affected by a fundamentally new type of privacy problem which is uniquely the result of developments in technology. The use of on-line information systems, particularly as they reach into the home and the office in their newest forms (e.g., viewdata, electronic funds transfer, electronic mail, remote data bases), not only store large amounts of information about individuals, but also enable the system provider to determine that a particular individual is, in fact, using the system at a particular point in time. The emerging policy response to this on-line, real time surveillance capability is to limit access to such locating information, except through appropriate forms of compulsory legal process.

Chapter I

Dissemination of Information

By Lawrence S. Robertson and Robert F. Aldrich

Chapter One identifies and examines significant U.S. policies concerning the dissemination of information. Technological and legal developments in the information field, which may require the formulation of new policies, are also considered. The right to create information dissemination policies is implied in the First Amendment's free speech protections, and these policies are specified in statutes, regulations, and case law aimed at maximizing or limiting the dissemination of information, or promoting diversity in the content or source of information disseminated.

Information dissemination policies reveal the nature of a society, characterize a nation's political process, and indicate a government's attitude in regard to the free or restricted flow of information. Each government must decide the extent to which it will allow its citizens to disseminate or receive information freely. U.S. dissemination policy seeks, perhaps more than such policies in other countries, to enhance the role information plays in enabling individuals and organizations to participate effectively in political, economic and cultural life. Hence the American policy of granting U.S. citizens broad rights of access to and dissemination of information.

The discussion in this chapter sets out some of the U.S. Government policies that affect the conditions under which information is currently disseminated. The next chapter considers policies that determine rights of access to information. Clearly, dissemination and access are closely related concepts. For purposes of analysis, however, it is helpful to distinguish policies that affect the active dissemination of information from policies that simply make it accessible upon request.

This chapter begins by discussing the historical background of the United States' distinctive attitude toward information dissemination. It then examines the way in which that attitude is reflected in U.S. policies that (1) determine the limits of government interference with private dissemination; (2) authorize or require the government to actively disseminate information; and (3) encourage a diversity of information in the marketplace by fostering private sector dissemination efforts.

Historical Background

Despite its long history of concern with freedom of information, the United States has not always encouraged information dissemination as vigorously as it does today. The debates at the Constitutional Convention, for example, were secret.[1] At one time the Senate met only behind closed doors. In reviewing the history of America's information dissemination policy, one commentator has quipped, "Secrecy in government is as American as apple pie."[2]

Today, however, the United States is among the most open societies in the world. Our dissemination policies contrast markedly with those in many other nations. Even Western democratic societies such as Britain and West Germany preserve a degree of secrecy for governmental and corporate information unknown in our society.[3] Totalitarian societies inevitably rely heavily on secrecy in the operation of their political and economic systems.[4] Many developing nations have also followed a pattern of strictly limiting the dissemination of vital political and economic information.[5]

Significance of the First Amendment. Although numerous historical influences shape current emphasis on open availability of information in U.S. dissemination policies,[6] the Bill of Rights and the First Amendment, especially, are of central importance. Although the First Amendment's precise meaning and application have generated enormous controversy, commentators have identified at least four fundamental values underlying it. These values in turn become the basis for a major portion of U.S. information policy. The Introduction to Part One refers to the values served in making a wide variety of information available to the public. These values are elaborated in the following paragraphs.

The views and conclusions contained in this chapter reflect those of the authors, and should not be interpreted as necessarily representing the official policies or recommendations of the National Telecommunications and Information Administration, the U.S. Department of Commerce, or the U.S. Government.

The primary value scholars have associated with the First Amendment is the enhancement of the right of all individuals to freedom of expression. The concept of free speech is fundamental to an open, democratic society.[7]

A second value underlying the First Amendment is the need of the people to oversee government actions, and to protect themselves against abuses of government power. Implementation of this value requires a check on the government's power to interfere with political speech. The question of whether implementation of this value also requires the widest possible dissemination of news, political criticism, facts about political processes and other matters of public concern has been a subject of broad debate.

James Madison in his constitutional critiques expressed the philosophical imperative underlying this aspect of the First Amendment:

> (A) popular Government, without popular information, or the means of acquiring it, is but a Prologue to a Farce or a Tragedy; or, perhaps both. Knowledge will forever govern ignorance: And a people who mean to be their own Governors, must arm themselves with the power which knowledge gives.[8]

A third value protected by the First Amendment is the preservation of a "marketplace of ideas." Implicit in this value is a belief that no single speaker has a monopoly on truth, and that social progress requires the toleration and even the promotion of a diversity of thoughts and viewpoints. The need for such a marketplace in the political arena was expressed in a classic dissenting opinion of Oliver Wendell Holmes.[9] The same value also underlies the First Amendment protection of art, music, and literature, in which non-interference by government is deemed essential to cultural development, and to the First Amendment protection of scientific and technical publications, which are necessary for scientific and technical advance.

Finally, the First Amendment is perceived as an instrument to enhance individuals' ability to make more effective decisions in all areas of their lives.[10] For example, product-related information, such as cost, reliability, and safety, influences the choices of well-informed consumers in the market.

Government Interference with Private Dissemination: Exceptions to the First Amendment

The First Amendment severely limits the power of the government to inhibit dissemination of information either by censoring the content or by restricting the channels of transmission. As currently interpreted, it does not guarantee that the government will adopt a policy of making information widely available.[11] Furthermore, it does not expressly encourage private organizations or individuals to speak or to listen. Rather, the First Amendment protects their right to do so if they choose, safeguarding this freedom from excessive government regulation.[12]

There are certain general exceptions to the First Amendment's basic rule forbidding the government to interfere with expression. Government regulations have been formulated which allow specific restrictions on the content of communications, as well as on the time, place and manner of their delivery.

Despite general agreement favoring openness and wide dissemination of information, specific dissemination policies raise numerous questions. On what grounds should the dissemination of some types of information be restricted? When and how should information be disseminated or restricted? Should anyone have special rights or privileges to receive information?

Content-Based Restrictions

Although any classification of information or expression by subject matter is somewhat arbitrary, the courts have divided information into various categories. For example, political information is the category considered to be the most critical to the well-being of the public; therefore, the government has almost no power to inhibit the dissemination of such information.[13] However, four other types of information are not as protected from government interference. The dissemination of commercial and personal information, for example, is subject to some legal limitations.[14] According to a long line of Supreme Court decisions, esthetic information which is determined to be obscene is unprotected by the First Amendment, and subject to total suppression.[15] Expression that prompts or incites an illegal act exceeds the rights granted by the First Amendment, and is subject to legal restraint.[16]

The amount of protection afforded various types of speech has changed over the last 200 years and continues to change. So too, the way in which the courts analyze speech-related cases has changed. The tendency of the courts today is not to exclude any category of speech from the scope of the First Amendment, but to subject each case to a balancing test in which the constitutional importance of a particular type of speech is weighed against the social interest served by suppressing it.

Although the courts have addressed the necessity of restricting certain categories of speech, the purpose for these restrictions is generally to support legitimate functions of government, such as its role in preserving the general welfare, protecting private property, and defending individual autonomy interests. In this section five government objectives, which are still among those recognized under many circumstances as valid reasons for imposing content-based restrictions on private speech, are examined. These government interests and objectives are (1) national security, (2) protection of the public from deceptive or misleading commercial information, (3) protection of personal information, (4) protection of copyright, and (5) protection of the public from offensive or obscene information.

Protection of National Security Information. In the twentieth century, the constitutional acceptability of content-based limits on private speech for purposes of national security has generally been eroded. Doctrines that permitted restrictions on "sedition" or on membership in "subversive" organizations have fallen into disrepute, though they are not entirely dead. Of course, the Constitution continues to be interpreted to permit the punishment of types of speech that are inseparable from illegal conduct, such as statements involving espionage or incitement to a criminal act; but in the latter category the courts are requiring closer and closer connections between speech and conduct. The most controversial cases of the 1970's involving national security-oriented limits on speech were not concerned with either sedition or incitement. In those cases, the restriction was defended by the government on the basis of its interest in preventing disclosure of official secrets.

Executive Order 12065 governs the classification of official secrets and makes information confidential if disclosure "could reasonably be expected to cause damage to the national security."[17] The Executive Order does not contain any standards by which agencies and the courts can determine whether damage might occur. In addition, the President has a constitutional duty to withhold information if its disclosure would compromise national security.[18]

Federal employees are subject to penalties and even civil liability for improper disclosure of national security information; for example, intelligence agencies now require some employees to sign "confidentiality contracts." The courts have rejected the argument that these agreements violate free speech, and have enforced them by restraining publication of information in violation of contractual protections, and by fining persons for making prohibited disclosures.[19]

Defense against Information Leaks. In addition to imposing sanctions against an employee who "leaks" secret information, can the government proceed against the publisher? In these instances the Constitution leaves little room for interference with publication. Generally courts have refused to use their equity powers to restrain the publication of information, even though its disclosure might compromise the national security.

In the *Pentagon Papers* case, for example, the Federal Government asked the Supreme Court to prohibit publication of certain internal reports describing and analyzing government decisions regarding the conduct of the Vietnam War. The result of the Court's decision was that the *New York Times* was able to publish the material, because the Court found that the government had failed to show how publication would damage national security.[20] But several Justices acknowledged that in a different case publication could be prohibited.

In at least one case, however, a court did restrain the publication of information potentially damaging to national security. A recent Federal District Court decision prohibited a magazine from publishing technical information about the construction and operation of nuclear weapons. The opinion in *United States v. Progressive, Inc.*[21] recognized that prohibitions on dissemination of information conflicted with the author's and editor's First Amendment rights. However, the court ultimately concluded that in some circumstances the right to disseminate information freely must give way to the nation's interest in protecting its security.

> A mistake in ruling against the *Progressive* will seriously infringe cherished First Amendment rights. . . . A mistake in ruling against the United States could pave the way for thermonuclear annihilation of us all. In that event our right to life is extinguished and the right to publish becomes moot.[22]

Standards to Declassify Data. The current standards for declassifying information are controversial. The government's right to disclose classified information selectively to some persons and not to others is one such issue. In the *Progressive* case, for example, the magazine's editors argued unsuccessfully that by circulating nuclear bomb information in academic circles, the government had waived any right that it might have had to prevent its publication.

There is also disagreement over the length of time which should elapse before information originally designated as sensitive may be disclosed. Although the passage of time usually increases the appropriateness of making information available, there are no standards for determining this time period.

Policies concerning dissemination of national security information reflect an attempt to balance openness against legitimate needs for secrecy. On the one hand, open dissemination of national security information assists the public in reviewing government actions and in making intelligent political decisions. On the other hand, the costs of disclosure can be high. If democracies are generally less effective in foreign policy matters than closed societies, one of the reasons may be that extensive public access to national security and foreign policy information inhibits effective government decision-making and action.

Control of Commercial Information. For a long time the government has regulated advertising and other commercial disclosures, such as sales presentations and land sale offering statements, to protect consumers. Today, however, the need for this sort of protection is being questioned. For example, state government prohibitions on advertising by members of certain professions, such as physicians and attorneys, are often criticized as unfair, uncompetitive and inflationary.

Until recently, the First Amendment was believed to allow unrestricted government regulation of advertising and other forms of "commercial speech." However, in a series of cases beginning in 1976, the Supreme Court has held that non-deceptive, non-misleading advertising *is* protected by the First Amendment, on the grounds that the free flow of such information is essential for consumers to make intelligent economic decisions. Although the full extent of the protection given to commercial speech is still unknown, it is fairly certain that a state may not prohibit lawyers and pharmacists from advertising their prices.[23] Furthermore, the Court has given notice that any government interference with accurate commercial speech will be closely examined. In one recent case, the court used a four-part test: If the advertising is not misleading and if it concerns lawful activity, then the regulation may be upheld only if it directly advances a substantial government interest, and is not more extensive than is necessary to serve that interest.[24]

Even when advertising is misleading, and thus presumably unprotected by the First Amendment, regulation of it is increasingly subject to criticism. Many industry groups charge that federal and state efforts to restrict allegedly deceptive or unfair advertising or related sales practices are overzealous, ineffective, and ultimately counterproductive. They claim that in an unrestricted, vigorous market, consumers can sort out and disregard deceptive information or unfair and deceptive sales practices. After many years of steadily increasing the regulatory power of the Federal Trade Commission, Congress is now moving toward decreasing its power to regulate advertising and sales practices.[25]

Protection of Information about Individuals. A third government objective that is often used to justify restrictions on the content of speech is the protection of personal information, the dissemination of which might injure a person's reputation or other privacy interests. This subject is discussed more fully in Chapter Three.

The protection of personal information has traditionally been advanced by the awarding of damages in court actions for defamation (libel and slander), for public disclosure of embarrassing private facts, and for publicity that places an individual in a false light. More recently, federal and state statutes have been enacted to place specific limits on the disclosure of certain kinds of information (e.g., medical records or bank records) by those entrusted with it.

Since 1964, however, it has been clear that there are limits to the power of the state to penalize individuals for statements that injure personal reputation. In the case of *New York Times v. Sullivan*,[26] the Supreme Court held that the First Amendment permits dissemination of information about a "public figure" unless it is disclosed with knowledge of its falsity or reckless disregard of the truth. If the information is not false, but merely embarrassing, the First Amendment provides equal or perhaps even greater protection. Several decisions by the Supreme Court indicate that information in the public record may be freely disclosed, even though its publication may injure some one who is not a public figure.[27]

These constitutional protections, however, do not necessarily prevent actions against those who publish information entrusted to them with an express or implied agreement of confidentiality.[28] Nor is it entirely clear whether the First Amendment protects the disclosure of embarrassing but accurate information about a person for purely commercial reasons. This question may soon be heard by the Supreme Court.[29]

Protection of Copyright. The unrestricted publication of information is unquestionably inhibited by the Federal Copyright Act, which prohibits the unauthorized appropriation of a copyrighted work. Undoubtedly, too, there is tension between the policy of the First Amendment which supports freedom of expression, and the policy of the Copyright Act, which is based on specific authority in the Constitution to "promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries." However, to the limited extent that the courts have addressed this issue, they have tended to resolve it by distinguishing between the First Amendment's protection of dissemination of ideas and the Copyright Act's protection against dissemination of the expression of an idea. As one court has pointed out, "the idea-expression dichotomy already serves to accommodate the competing interests of copyright and the First Amendment. The 'marketplace of ideas' is not limited by copyright because copyright is limited to protection of expression."[30] An alternative way of viewing the copyright clause of the Constitution is as a mechanism enabling the Congress to create limited exceptions to the First Amendment. However, the standards, if any, limiting the scope of such exceptions are not specified by the Constitution.

Protecting the Public from Obscene Information. There are limited legal restrictions on the dissemination of cultural and esthetic information. These restrictions appear primarily in state and local laws limiting the dissemination of sexually explicit information that is considered obscene.[31] Significantly fewer restrictions appear on the dissemination of information concerning violence.[32]

The celebrated *Scopes* case is perhaps the most dramatic example of a state's attempt to regulate the dissemination of esthetic or cultural information. The highly charged atmosphere surrounding the *Scopes* trial provided a demonstration of the convictions of a deeply offended segment of the population, who insisted upon the suppression of information which was contrary to its religious views. After one unsuccessful attempt, the Tennessee Supreme Court was persuaded to overturn a state legislative statute that had prohibited the teaching of the theory of evolution in public schools.[33] The Court held that the statute violated teachers' First Amendment rights of expression, thereby overturning the state's effort to regulate the dissemination of cultural information, and enabling the theory of evolution to be taught in Tennessee.

The U.S. Supreme Court has also used the First Amendment to strike down government attempts to regulate the dissemination of cultural expression. In *Joseph Burstyn, Inc. v. Wilson*, for instance, the Court overturned a New York State order which barred the showing of a motion picture because of its sacrilegious nature.[34]

Despite the First Amendment's guarantee of free speech, however, the Supreme Court has refused to protect obscene information on the grounds that it is not covered by the First Amendment. Restrictions on the availability of obscene information are based on the premise that the dissemination of such material has a unique and adverse impact on the sensibilities of the great majority of the public, which outweighs the legitimacy of any interest in sending or receiving it.[35]

Restrictions on Obscene Information. Current restrictions on the availability of obscene information are based on a radically different premise from that which underlies the restriction of other types of information. Generally, information is restricted when disclosure is deemed to be the cause of tangible harm to some societal interest. In contrast, the possible harm caused by disseminating obscene material is both conjectural (depending upon each individual's point of view), and ephemeral (in terms of limited duration).

Thus, those who do not oppose the dissemination of obscenity believe that individuals who are personally offended by such information can close the book, stay out of the movie theater, turn off the television set, or otherwise take steps to avoid exposure to it. Generally, the argument continues, only willing receivers are exposed to obscene information, except in the case of children, who may inadvertently be exposed to such material. Therefore, the argument concludes, while restrictions on the dissemination of obscenity to minors may continue to be needed, all other restrictions on the availability of obscene information are unnecessary, and should be left to the discretion of the individual.

Policy Questions in regard to Obscenity. Thus obscenity restrictions ultimately raise two policy questions. Should there be any restriction whatsoever on disseminating obscene information? And, assuming that there should be, what is an acceptable definition of obscene information?

Courts view obscene information as lacking in intrinsic worth, and therefore subject to restriction without damage to any legitimate interest.[36] But this interpretation poses problems when considered in the broader context of the goal of promoting availability of information. The pursuit of this goal arguably precludes us from inquiring whether the dissemination of a particular piece of information is in the public interest or even whether it serves a legitimate purpose. In this context, it is important to realize that information considered obscene by some may have legitimate esthetic or emotional value to others.

Despite the courts' view that obscene information can be regulated, such information may frequently appear to be indistinguishable from artistic, educational or clinical information about sex. It is virtually impossible to devise an objective standard in an area in which personal tastes and motives are so controlling.

Prevailing Definition of Obscenity. The Supreme Court's 1957 decision in ***Roth v. United States*** articulated the prevailing definition of obscenity: "Whether to the average person, applying contemporary community standards, the dominant theme of the material taken as a whole appeals to prurient interest."[37] Thus, juries throughout the country have the power to define obscenity according to local law and community standards. Furthermore, the ***Roth*** standard appears to permit a jury in any community to impose its view on the rest of the nation, because, according to that standard, interstate suppliers of potentially pornographic materials are constantly vulnerable to prosecution by the least permissive community. The determination of obscenity in this manner is the only circumstance in which the final determination as to constitutional protection of speech is made at the local level.

Time, Place, and Manner Restrictions

In general, the First Amendment has been held not to prohibit reasonable time, place, and manner restrictions on information dissemination. Policies may limit the time and place of dissemination in order to ensure the individual's enjoyment of his private property,[38] the reasonable and fair use of public property,[39] and the protection of individuals in captive settings.[40]

Policies may restrict the manner of expression, when, for example, it is so loud or raucous that it offends listeners' quiet enjoyment or sensibilities,[41] when provocative expression incites listeners to lawless or violent acts,[42] when such expression accompanies otherwise illegal or offensive action,[43] or when it is transmitted over a broadcast medium.[44]

But inevitably, important questions emerge concerning policies that restrict the time, place, and manner of dissemination when such restrictions are considered within the overall context of the freedoms of speech and press granted by the First Amendment. The explanation often given for permitting such restrictive policies—that the restrictions on dissemination merely redirect the flow of information without preventing it from reaching its proper audience—is an explanation which many critics consider ingenuous and unrealistic.

Restrictions Interrupt Information Flow. In actual practice, the assumption that the proper flow of information continues despite such dissemination restrictions has frequently proved to be fallacious. As our society grows larger, more complex and more dependent upon electronic communications, restrictions upon time, place and manner of dissemination may effectively achieve censorship. If, for example, federal policy prohibits the broadcasting of certain messages on mass communications media networks which reach the vast majority of people, such a restriction may effectively prevent the wide distribution of that message.

In addition, the critical issue of whether policies on content regulation should be tailored to different media or manners of presentation remains to be addressed. Currently, federal law restricts access to and use of the broadcast media, but not the print media. And yet, both media reach wide audiences with information which is frequently similar. Finally, the question of what constitutes a public place protected by the First Amendment[45] is a difficult one, as are questions about the amount or type of information which is permitted to be disseminated in public places. These points will have to be considered in formulating the dissemination policies of the future.

Dissemination of Information Held by the Government

There are a few significant federal statutes that illustrate Congress's approach to fostering the dissemination of information held by the government. Most of these are also statutes enabling the public to have access to government information, and as such are considered more thoroughly in Chapter Two.

Freedom of Information Act (FOIA)

Although usually considered a law to promote access to government-held information, the Freedom of Information Act is also a dissemination law.[46] This Act requires every agency to disseminate and publish several types of information actively: (1) descriptions of its office organization and procedures for interaction with the public; (2) explanations of all formal and informal functions and procedures; and (3) statements of general policy and substantive rules. In addition, the Act requires federal agencies to make certain kinds of information automatically available for public inspection and copying: (a) final adjudicative opinions, (b) interpretations of policy, and (c) staff manuals and instructions that affect the public.

Other information in agency records need not be actively disseminated, but it must be made available to any party upon request, unless it qualifies for one of the FOIA's nine disclosure exemptions. The coverage and effect of these exemptions raise important policy questions regarding access to and dissemination of government information.

The FOIA exempts from disclosure: (1) information that is authorized to be kept secret in the interests of national defense or foreign policy; (2) internal agency personnel rules and practices; (3) information specifically exempted from disclosure by statute; (4) certain trade secret and commercial information; (5) inter and intra-agency communications that reflect an agency's deliberative process; (6) certain personal information; (7) certain investigatory records compiled for law enforcement purposes; (8) financial regulatory reports; and (9) certain geological and geophysical information.

Government in the Sunshine Act (Sunshine Act)

The Sunshine Act is another example of a law which places affirmative obligations on federal agencies to make information available.[47] The intent of this Act is to make certain federal meetings accessible to the public. As a general rule, the Act requires that "every portion of every meeting of an agency shall be open to public observation." Agencies covered by the Act can close a meeting if it is "likely" to disclose information that comes within one of the Sunshine Act's ten disclosure exemptions. The Sunshine Act exemptions are similar but not identical to the exemptions in the FOIA.

Privacy Act of 1974

This statute sets disclosure standards for personal information held by federal agencies.[48] It prohibits disclosure of personal information to third parties without the subject's consent, unless the disclosure comes within one of the Privacy Act's eleven exemptions. It also requires agencies to disclose most information in most personal records to the subject of the record upon his request.

Federal Advisory Committee Act (FACA)

Advisory committees, under FACA,[49] are composed of members of the public. They are created by statute or by Executive or agency authority to provide citizen advice in agency decision-making processes. At the same time, advisory committees provide forums for agencies to inform the public of their activities. Today there are 820 advisory committees in operation.[50] Advisory committees are an established American tradition, as George Washington created the first advisory committee in 1794 to investigate the Whiskey Rebellion.[51]

Title 44 of the U.S. Code: Disclosure Provisions

The *Federal Register* is published each business day by the Public Printer.[52] Four classes of information must be published in the *Federal Register:* (1) Presidential proclamations and Executive Orders (except those that do not have general applicability and legal significance); (2) other documents that the President determines have general applicability and legal significance; (3) documents which are required to be included by statute; and (4) documents authorized for inclusion in the *Register* by agency regulation. Section 1505 of Title 44 of the U.S. Code expressly prohibits the inclusion of comments or news items of any kind in the *Federal Register*.

Publication of a document in the *Federal Register* constitutes constructive legal notice of the content of the document to the public.[53] For this reason, and because the *Federal Register* is used as the Federal Government's principal formal means of informing the public of its activities, it plays a significant role in federal dissemination policy.

Title 44 contains other pertinent dissemination provisions. That title authorizes numerous agencies to publish agency periodicals or journals for public consumption.[54] Title 44 also requires the Public Printer to publish and disseminate reports of congressional committees to government agencies and to the Library of Congress,[55] and mandates the dissemination of most government publications to federal depository libraries for public use.

Other Affirmative Dissemination Policies

Many statutes either directly or indirectly require the government to disseminate certain information to the public. Many of these statutes require dissemination of the results of government-conducted or sponsored research programs. For example, the 1978 amendments to the National Cancer Act require the Department of Health and Human Services to publish a report each year describing carcinogen research activities.[57] The National Technical Information Service (NTIS) disseminates scientific and technical publications to all customers at a fee schedule set by NTIS.[58]

Some statutes also direct the Federal Government to generate or support specific types of valuable information and information services to the public when private entrepreneurs are not able to supply them. Weather information provided by the National Weather Service,[59] and the underwriting of library costs[60] are included in this category.

Government agencies disseminate some types of information without cost to recipients. For example, many agencies provide educational materials, bibliographies, and indexes.[61] They also supply extensive information to consumers about the safety or health aspects of certain types of products.[62] In general, the government does not charge for these services, both because it views dissemination as serving important societal interests, and because the recipients of this information are taxpayers, who have already paid once for its preparation.

Conflicts over Dissemination Policy. Significant policy conflicts often develop when the government operates information services. The decision to act as a disseminator of information or to operate an information service may conflict with the historic preference that the private sector perform these functions. The government's dissemination of information or provision of certain information services may discourage private firms from entering information markets. In the long run, the absence of private sector activity in the field of dissemination could result in a decrease in the amount of publicly available information or services. The U.S. Post Office's provision of electronic mail services and the Federal Reserve Board's operation of certain types of electronic funds transfer services[63] are among the government services that are the important targets in this debate concerning the possibility of federal domination of information dissemination.

A number of private organizations play a vital role in the acquisition, classification and dissemination of federal information, which they package and sell to the public. It is possible that in the future if the private sector indicates increased willingness to provide these services, the government could turn over much of its information dissemination function to private firms. The argument for such a policy is that the marketplace can do a better job of both maximizing and individualizing the delivery of some types of information products.

Distribution through the marketplace is predicated on consumers' desire and ability to pay for information, even when the publishers originally receive the information at little or no cost from government sources. Consequently, there is a fear that if total reliance is placed on the private sector, only the most affluent citizens of organizations might receive government information. Consumers have clearly already paid for the provision of information through taxes. "Double payment" might contribute to the creation of informational elitism, and could limit the wide dissemination of information believed to be in the public interest.

Diversity and the Dissemination of Information

Another significant type of policy aims at promoting diversity in the source and type of information disseminated. Encouraging diversity is thought to further the goals of creating a vigorous and heterogeneous political, social and cultural environment, as well as enhancing personal liberty by expanding choices and opportunities.

The Federal Government uses several ways to achieve greater diversity, through regulation of the content of information disseminated, regulation of the structure of industries that produce and transmit information, and provision of public access to communication and dissemination channels. In addition, there are policies which encourage the marketplace to provide more diversity.

Although there are policies for achieving diversity in a number of information-related contexts, the broadcasting medium, the press, and some of the new electronic information technologies illustrate the effects and problems of such diversity-oriented regulation most clearly.

Content Regulation

Several statutory and administrative policies regulate the content of information in order to promote diversity.[64] By far the most important phenomenon influencing content regulation is the need to allocate and manage the electromagnetic spectrum in order to broadcast. The broadcast spectrum has two characteristics that continue to require some sort of regulation. First, there is a need for frequency allocation and assignment in order to prevent one speaker from drowning out or interfering with another. Secondly, the spectrum is a practically finite resource, and there may be more people who wish to broadcast than the spectrum can accommodate. Consequently, federal law has designated broadcasters as public trustees of the frequencies assigned to them. Thus, the broadcast station does not own the frequency, but rather is a licensee entrusted with using it for a limited period of time, if it can meet certain technical requirements and can provide certain programmatic benefits to the public.

One of the Federal Communications Commission's (FCC) programmatic objectives in regulating broadcasting is to help inform the electorate. In order to promote this objective, the Fairness Doctrine, a policy central to broadcasting, requires that broadcasters devote a reasonable amount of time to the discussion of controversial issues of public importance, including those of local importance to the public. This policy additionally requires that broadcasters afford a reasonable opportunity for the presentation of contrasting viewpoints. The FCC reviews a broadcaster's performance in meeting its Fairness Doctrine obligations, as well as other performance criteria, at the time of license renewal or when it receives a specific complaint.[65]

Challenges to the Fairness Doctrine. A variety of arguments have been advanced challenging the Fairness Doctrine. These criticisms address both the wisdom of the policy and its practical application. The doctrine has been challenged as having a chilling effect on broadcasters, causing them to avoid controversial topics whenever possible.[66] If this is so, the ironic effect of the Fairness Doctrine may be to encourage homogeneous issue coverage rather than broad and pointed debate. Then too, some believe that the FCC's requirement that broadcasters cover issues of major local importance involves a direct and ill-advised intrusion by government into the press's editorial discretion.[67] Also, it is increasingly likely that in geographic areas where there are significant numbers of stations, dissemination of diverse information will occur more or less automatically, thus lessening the impetus for regulation of program content.[68]

There is significant concern about the application of a policy like the Fairness Doctrine to broadcasting, while printed materials have virtually no such limitations on dissemination. The Supreme Court has said that the First Amendment prohibits the application of content regulation to the print media.[69]

Supporters of the Fairness Doctrine argue that as long as broadcasting has to pay for itself by drawing wide audiences in order to sell time to commercial advertisers, it is unrealistic to assume that stations voluntarily will have significant public affairs programming or coverage of interest to minorities because those sorts of programs ordinarily do not attract large lucrative audiences. Historically, adverse FCC action against a broadcaster for violation of the Fairness Doctrine has been extremely infrequent; yet, the policy of discussing controversial issues of public importance has been promoted by the Fairness Doctrine's mere existence.

There are no easy, clear-cut, or wholly satisfactory answers to the controversy over the Fairness Doctrine. It is not apparent that it totally accomplishes its objective of promoting the dissemination of information of diverse content or source. However, it is equally unclear whether amending or eliminating the Fairness Doctrine would produce a better result.

Industry Structure

Government regulation of the number and characteristics of organizations disseminating information is the result of policy effort to achieve diversity in the content of information. There are two reasons for adopting a regulatory approach that focuses upon an information industry's structure. First, regulation ensures that underrepresented or unrepresented interests, such as those of ethnic, political, or religious minorities, can be expressed by minority ownership of or participation in the control of media outlets. In so doing, such regulation encourages minority groups to develop a greater role in society, and to disseminate diverse types information. Second, policies that limit the number of commonly owned and controlled media outlets reduce the risk of media concentration or domination, and foster a heterogeneous and diverse exchange of ideas.

Policies to Increase Viewpoints. Some policies directly increase the number of persons or organizations that disseminate information. The most significant policies in this category promote ownership of media outlets by identifiable minorities such as blacks and Spanish-speaking peoples.[70] Policies to foster this objective include preference in hearing license applications, and greater availability of loan funds to minority enterprises, provided by both the government and the National Association of Broadcasters (NAB).[71] Although these programs are steadily increasing minority ownership of stations, there are still relatively few minority-owned broadcast outlets. Moreover, the economics of present-day broadcasting markets are such that many minority owners have pursued the same mass media markets as traditional broadcasters.

A Special Case: Public Broadcasting. The Congress has authorized the creation and operation of networks of radio and television stations funded jointly by federal, state, and private funds.[72] Recently, the Carnegie Commission completed its study of public broadcasting and published its recommendations on how to improve the ability of public broadcasting to ". . . broaden our conversation to include the diverse interests of the entire society. . . ." The Commission considered there to be little doubt that public broadcasting has in fact increased diversity.[73]

In most other countries the government controls some or all of the content of broadcast programs.[74] In contrast, the strong preference in the United States is for public broadcasting to be independent of government interference. There is a general view that the Public Broadcasting System (PBS) has achieved an admirable record in that regard.[75] In fact, government-financed propaganda agencies such as Voice of America and the International Communications Agency (formerly USIA) are forbidden by law from disseminating their programs domestically.[76]

One recent charge of bias leveled at PBS concerns corporate funding of specific historical and public affairs programs. Critics contend that programs analyzing public policy issues produced with monies from large corporations such as oil companies are biased by the view of the sponsor.[77] PBS and oil industry funders deny any such bias. There is no definitive research to show that corporate funders of PBS programs have any different influence on programs than that of corporate advertisers, whose commercials support network public affairs programming.

Policies Restricting Concentrated Ownership. There are policies designed to reduce the number of outlets owned by any one disseminator. These policies assume that owners of newspapers and radio and TV stations tend to control, or at least influence, news reporting, editorial policy and program content.

Rules restricting the number of commonly owned media outlets have proliferated since the promulgation of the first "Chain Broadcasting Rule" during the Second World War.[78] There are rules restricting the number of AM, FM and TV stations that one broadcaster can own, both in any one market, and on a nationwide basis,[79] as well as rules restricting joint ownership of newspaper and broadcasting outlets, and the common ownership of cable television, telephone, or broadcast systems.[80] Also, there have been suggestions that broadcast and cable operators be treated as common carriers, and that program scheduling should be separated from transmitter operation.[81] The Federal Trade Commission has begun investigating the concentration of ownership of daily newspapers in individual markets and on a nationwide basis.[82]

These rules and proposals may have beneficial effects. If there are limits on the number of media properties which any one entity can own, there are opportunities to diversify the ownership of media outlets. This lessens the risk that any one organization might dominate media programming.

Risk of Limiting Dissemination. There is some evidence to support the notion that the increasingly concentrated state of the ownership of mass media poses risks to broad dissemination of ideas.[83] If concentration of editorial control is pervasive enough, not only will the number and diversity of views that are expressed decline, but also the existing media outlets will gain more influence and power. Press endorsements of candidates for local office appear to be of increasing importance. Endorsements of candidates by *The Baltimore Sun* and *The Washington Post* in 1978 elections may have changed the outcome of at least two local elections.[84]

However, large and powerful media organizations may be the most effective critics of a large, powerful government. It is unlikely, for example, that the events surrounding the Watergate scandal, which were first investigated and made public by *The Washington Post*, could have been investigated and reported by a small, relatively weak newspaper.

Common Media Ownership's Effect on Diversity. The effect of concentrated media ownership on information diversity is unclear. There is evidence, for example, that common ownership of a broadcast station and a newspaper in the same locality results in more coverage of the same news stories, and a relative diminution of the quantity and diversity of broadcast editorial opinion.[85] Some studies indicate no significant differences in categories of programming, including the amount of local programming, in concentrated and non-concentrated markets.[86] A study of diversity of cablecast content has found that larger cable systems (over 20,000 subscribers) owned by operators who own other cable or broadcast outlets tend to show more network and less local programming. However, there were no substantial differences in diversity in smaller cable systems (less than 20,000 subscribers) as a function of ownership by single or multiple outlet organizations.[87]

Many newspapers which share common ownership with a broadcast station nevertheless manage to pursue more or less independent editorial policies. Moreover, most local papers do not monopolize their markets in disseminating the news of current events, advertisements, or cultural information. As a rule, even in small communities papers from adjacent localities, metropolitan centers, and a few national newspapers and magazines are generally available. Of course, radio and television programs also disseminate information in small communities with only one local paper.

As a result of concentration of ownership within parts of the media industry, there may be some reason to fear that less diverse information will be disseminated. However, the variety of information available from all sources—including information produced from the emergence of data processing—suggests that the concern about diversity of media ownership may not be urgent enough to warrant the risks of government intervention.

Access to Forums

Government regulation of both content and ownership of information attempts to promote diversity by increasing the number and variety of disseminators. There have also been suggestions that the provision of forums from which speakers have access to mass audiences would be an even better method of achieving diversity.

Policies providing access to forums have continuing appeal because they avoid placing restrictions or content-related obligations on the dissemination rights of any particular person or organization. In this sense, such policies probably come closer than other diversity schemes to meeting traditional American notions of liberty and free speech.

Public Places. Twentieth century interpretations of the First Amendment stress the right of individuals to disseminate whatever information they wish in public places such as parks, shopping centers, and even company towns (towns primarily under the ownership or influence of a single company).[88] Access to such places must generally be granted on a non-discriminatory basis so that public places become like common carriers in providing all individuals equal rights of access in terms of allowing unimpeded information dissemination. Of course, use of parks, shopping centers, or company towns as public forums may at times interfere with the owner's control of his property, or with other legitimate uses of public places, problems which create additional legal ramifications.

The Press, Television, and Radio. The problem of granting unimpeded public access to privately owned newspapers for the expression of varying points of view has been addressed by the Supreme Court, which rejected the concept of categorizing a newspaper as a public place, a legal designation upon which free access is predicated. The prohibition against granting public access for newspaper expression remains valid even in the case of small communities having only one newspaper. A radical transition in the American concept of private press ownership and editorial control would have to occur in order to create a policy change in which newspapers would begin to be treated as public places permitting equal public access for personal expression. Newspaper publishers consider that the level of public support necessary for the continued publication of a private newspaper could be threatened by policies requiring newspapers to print materials other than those that the newspaper's editorial board considers appropriate. Because there is no governmental impediment to hinder the establishment of new print publications, those who promote the concept of a press free of government regulation argue that individuals who wish to express their personal points of view might do so by starting their own publications.

However, the idea that the privately owned press should not be subject to public access obligations has been challenged recently. Because of the high cost of operation and of publishing, there has been a tendency for newspapers and magazines to form large conglomerates, reducing the number of printed media available for public access or expression. With high costs diminishing the possibilities of creating new print publications, some argue that existing newspapers and magazines should be used as vehicles for the expression of differing points of view by the public.

Government policy has traditionally revealed a similar reluctance to consider broadcast media as public forums. In contrast to the concept of private ownership and control of newspapers, the Communications Act of 1934 instead applies the notion of public trusteeship to broadcasters. The Communications Act obligates broadcasters to act on behalf of the public interest as perceived by the government. The public interest standard has led to the development of obligations peculiar to broadcasting, which include the Fairness Doctrine, local ascertainment, certain logging requirements, and content-related license renewal or transfer rules.

Gaining Public Access to the Media. Although the cost of establishing a broadcast station, newspaper, or cable TV system is beyond the resources of most citizens or organizations, policies could be developed which would enable the public to produce programs or disseminate other types of information over these media. For example, many localities have insisted on public access channels as a condition of granting franchises to companies which operate cable television systems.[89] However, at this time there is little if any federal policy requiring either the press or electronic media to provide public access channels, and there is no constitutional right of access to such channels.[90]

When the FCC attempted to institute requirements for public access channels in cable TV systems, the Supreme Court ruled that the FCC did not have authority to require cable operators to provide public access to cable TV. The Court found that cable TV under the Communications Act could only be regulated as a type of broadcast medium, and could not be regulated as a common carrier.[91] If cable TV were to be regulated as a common carrier in the future, operators might not be allowed to originate their own programs, but instead would lease time to others to provide programming on a first-come, first-served basis at a fixed rate. Thus, anyone who could pay the standard fee could express his viewpoint, which would be one means of promoting public access to electronic media. Whether or not this would ultimately lead to diversity of the content and ownership of information would then depend on the mixture of persons and organizations buying time on the cable TV system.

Current Obligations on Broadcasters. Of course, at the present time there are some limited obligations on broadcasters to allow the public to purchase time for political expression. All stations must provide reasonable access to broadcasting time for candidates seeking federal office. If a candidate for election is granted time to speak on radio, commercial TV, or cable TV, all other candidates must have the opportunity for equal time under similar financial arrangements. All stations must provide reasonable access to candidates seeking broadcasting time for federal office. In addition, if someone makes a defamatory comment on the air, the subject of the comment has the right of reply. There are no similar policies governing newspapers, which are subject only to the common law of libel.

The theory that the newspaper is a more widely available forum than the electronic media is undergoing reexamination in light of the conglomeration in that industry, and the simultaneous emergence of diverse electronic media (such as cable TV systems with an 85-channel capacity). However, in both the print and electronic media, information increasingly is targeted for specialized audiences through a variety of magazines, video cassettes, pay TV and other forums. So the achievement of diversity in both source and content of expression may become a reality only when all information forums are considered in the same context using identical evaluative standards.

A Multiplicity of Forums

Cable and pay television are here to stay and are becoming increasingly competitive. The number of broadcast channels into the home is increasing dramatically. Additional technological developments include satellites, videodisc players, teletext, and other home information systems.

Once there are sufficient competing electronic means of delivering information, it should become more profitable to service small specialty markets, particularly with low budget non-entertainment programs. Today, as a result of significant competition in some radio markets, stations are already attempting to serve small, specialty audiences.

Home information systems, marketed under various trade names and sometimes described by the generic names of Teletext, Viewdata, and Videotex, offer an emerging model for the delivery of information geared to both very large and very small audiences of even single individuals. The systems use a combination of telephone and fiber optics cable and computer technology. They permit individuals to request and receive specific information or programs on home computer terminals and screens. Over-the-air broadcasting of this information is also possible, and could become competitive with cable based systems. These technologies, along with videodisc technology (video cassettes of movies, television programs or other types of audio-visual information), offer information providers potentially profitable ways to serve very small segments of the population.

Advances in broadcast technology make possible the separation of television receiving components from display components. More selective receivers could vastly increase the number of channels that could use the available spectrum.

Added Forums Increase Competition. If the number of forums from which speakers can reach mass audiences increases substantially through advances in broadcast technology, there will unquestionably be a significant effect produced on current industry practices. For example, there will certainly be more demand for creating new programs and information services, using radio and TV, newspapers, on-line data bases, and other media. The increase in forums in turn should stimulate the development of new organizations to gather news, and to produce and distribute additional information services. The increase in information services should increase competition to reach the available audience. If technologies which do not use spectrum are successful competitors with those that do, the value of spectrum and the corresponding value of FCC broadcast licenses may be reduced.

As consumers split their attention and money among an increasing variety of specific information products, there may be some reduction in the level of public support for activities like public broadcasting. If its continued survival is in the public interest, the government may have to increase its level of subsidy.

If broadcast advertisers have to spend more revenues and at the same time reach smaller audiences, they may shift to newspapers or other forums. This could lead to basic changes in the method of financing commercial television and in the content and format of programs. If the richness and diversity of the information marketplace continues to increase, the need for continued regulation of the electronic media could become largely irrelevant.

Conclusion

In accordance with national objectives, during its 200-year history the United States has given great attention to information dissemination policies. Constitutional provisions and numerous statutes and regulations illustrate how fundamental these policies are to maintaining the delicate balance among individual liberties, property rights, and important societal protections.

At a time when information services and sophisticated information technologies are assuming increasing importance, it is helpful to identify the role of current information dissemination policies in fostering desired social, cultural, and economic policies. As new technology-based information services replace traditional means of dissemination, the continuing effectiveness of our information dissemination policies raises fundamental issues. The way these questions regarding the proper role of Federal Government and major corporate information providers are resolved may determine the ability of the American people to control both the dissemination and the reception of information in future decades.

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Notes

[1] Norman Dorsen and Stephen Gilers, eds., *None of Your Business: Government Secrecy in America* (New York: Viking Press, 1974).

[2] Herman Kahn, as quoted in *None of Your Business*, p. 5.

[3] R. S. Warren, *The British Are Coming: The British Are Coming. Is The Bicentennial Celebration to Include Imposition of the British Contempt Rule?* 51 Los Angeles Bar Journal 534 (1976); H. Bernstein, *West Germany: Free Press and National Security—Reflections on the Spiegel Case*, 15 American Journal of Comparative Law 547 (1966-1967).

[4] See H. J. Berman, *Law in American Democracy and Under Soviet Communism*, 5 New Hampshire Bar Journal 105 (1963).

[5] D. W. Bowett, *Self-Determination and Political Rights in the Developing Countries*, 60 American Society of International Law Proceedings 129 (1966).

[6] D. S. Kahane, *Colonial Origins of Our Free Press*, 62 American Bar Association Journal, 202-06 (1976).

[7] This argument rests in part on ideas expressed by 18th century theorists such as John Locke and Thomas Jefferson, who stated the concept that every individual has a natural right to express his thoughts. See Donald Meiklejohn, *Public Speech in the Supreme Court Since New York Times v. Sullivan*, 28 Syracuse Law Review 819 (1975). This interest was also cited by the framers of the Constitution as one of the basic goals of the First Amendment: "The enjoyment of liberty, and even its support and preservation, consist in every man's being allowed to speak his thoughts and lay open his sentiments." Address to the Inhabitants of Quebec (1774), quoted in Bernard Schwartz, *The Bill of Rights: A Documentary History* (New York: McGraw-Hill, 1971), p. 225.

[8] James Madison to W. T. Barry, 4 August 1822, *Writings of James Madison*, ed. G. Hunt (New York: G. P. Putnam, 1900-1910).

[9] *Abrams v. United States*, 250 U.S. 616, 630 (1919).

[10] See *Virginia State Board of Pharmacy v. Virginia Citizens Consumer Council, Inc.*, 425 U.S. 748 (1976), and *Thomas v. Collins*, 323 U.S. 516 (1945).

[11] See *Pell v. Procunier*, 417 U.S. 817 (1974); *Houchins v. KQED, Inc.*, 438 U.S. 1 (1978); and *The Rights of the Public and the Press to Gather Information*, 87 Harvard Law Review 1505-33 (1974).

[12] See *Main Road v. Aytch*, 522 F.2d 1080 (3d Cir. 1975).

[13] In *Buckley v. Valeo*, 424 U.S. 1, 14 (1976), the Court held that "(t)he First Amendment affords the broadest protection to . . . political expression. . . ."

[14] *Virgil v. Time, Inc.* 527 F.2d 1122 (9th Cir.), *cert. denied*, 425 U.S. 998 (1975); *Millstone v. O'Hanlon Reports, Inc.*, 383 F. Supp. 269 (E.D. Mo. 1974).

[15] *Paris Adult Theatre I v. Slaton*, 413 U.S. 49 (1973).

[16] In *Giboney v. Empire Storage and Ice Co.*, 336 U.S. 490, 502 (1949), the Court said: "It has never been deemed an abridgement of freedom of speech or press to make a course of conduct illegal merely because the conduct was in part initiated, evidenced, or carried out by means of language, either spoken, written, or printed."

[17] 5 *U.S. Code Annotated*, Section 552b(c)(1)(A)(1977); 43 *Federal Register* 28, 949 (1978).

[18] See, for example, *United States v. Marchetti*, 446 F.2d 1309, 1315 (4th Cir.), *cert. denied*, 409 U.S. 1063 (1972).

[19] *Ibid.*, p. 1316. See *U.S. v. Snepp*, 444 U.S. 507 (1980).

[20] *New York Times Co. v. United States*, 403 U.S. 713, 728 (1971).

[21] *United States v. Progressive, Inc.*, 467 F. Supp. 990 (W.D. Wis. 1979); and *United States v. Curtiss-Wright Export Corp.*, 299 U.S. 304 (1936).

[22] *Progressive*, p. 996.

[23] *Bates v. State Bar of Arizona*, 433 U.S. 350 (1977); *Virginia State Board of Pharmacy v. Virginia Citizens Consumer Council*, 425 U.S. 748 (1976). The Court voided a Virginia statute which had deemed the advertising of prescription drugs to be unprofessional conduct. The Court held: "As to the particular consumer's interest in the free flow of commercial information, that interest may be as keen, if not keener by far, than his interest in the day's most urgent political debate."

[24] *Central Hudson Gas & Electric Corp. v. Public Service Commission*, 48 U.S. Law Week 4783 (5 June 1980). See *Carey v. Population Services Int'l*, 431 U.S. 678 (1977); and *First Nat'l Bank v. Bellotti*, 435 U.S. 765 (1978). But see *Friedman v. Rogers*, 435 U.S. 967 (1979), in which the Court recently upheld the constitutionality of a state regulation under the "Texas Optometry Act," which barred the use of trade names for the advertising of optometrical practice. Justice Powell found that the state's interest in protecting the public from deceptive and misleading trade names was substantial and well-defined, and therefore, the regulation was constitutionally permissible as a furtherance of that interest.

[25] See for example the Federal Trade Commission's (FTC) statutory authority to prohibit deceptive, misleading or unfair advertising, as codified in 15 *U.S. Code Annotated*, Section 52 (West Supp. 1980). Specific FTC advertising standards are located in Title 16 of the *Code of Federal Regulations* (1980).

[26] 376 U.S. 254 (1964).

[27] *Smith v. Daily Mail Publishing Co.*, 443 U.S. 97 (1979); *Cox Broadcasting Corp. v. Cohn*, 420 U.S. 469 (1975).

[28] *Doe v. Roe*, 400 N.Y.S. 2d 668 (Sup. Ct. 1977).

[29] *Equifax Services, Inc. v. Cohen*, summarized in 49 U.S. Law Week 223 (9 September 1980).

[30] *Sid & Marty Krofft Television v. McDonald's Corporation*, 562 F.2d 1157 (9th Cir. 1977).

[31] See S. Cross, *Obscenity: Determined by Whose Standards*, 26 University of Florida Law Review 324-29 (1974).

[32] See *Family Viewing Hour: An Assault on the First Amendment*, Hastings Constitutional Law Quarterly 935-89 (1977); and *Violence on Television*, 6 Columbia Journal of Law and Social Problems 303-24 (1970).

[33] *Tennessee v. Scopes*, 154 Tenn. 105, 289 S.W. 363 (1927). Information relating to evolution can be labeled as either scientific expression or cultural expression; and this topic contains elements of both types of speech.

[34] 343 U.S. 495 (1952). See *Epperson v. Arkansas*, 393 U.S. 97 (1968), in which the Court struck down a law similar to that in the *Scopes* trial as an unlawful establishment of religion in violation of the First Amendment.

[35] See *Obscenity and the Law*, 28 Hastings Law Journal 1275-1358 (1977). The entire issue of this publication contains a number of articles relating to obscenity and the law.

[36] Notwithstanding the court's acceptance of this view, the Court has used the First Amendment to protect an individual's right to receive pornographic materials in his own home. In *Stanley v. Georgia*, 394 U.S. 557 (1969), the Supreme Court held that people have a First Amendment right to retain and read pornographic materials in their own home. However, the Court has also held that people do not have a right to import pornography, *United States v. 12 200-Ft. Reels of Super 8 MM. Film*, 413 U.S. 123 (1973), or to transport pornography in interstate commerce for their private use, *United States v. Orito*, 413 U.S. 139 (1973).

[37] 354 U.S. 476, 489 (1957).

[38] In *Breard v. City of Alexandria, La.*, 341 U.S. 622 (1951), for example, the court upheld an Alexandria, Louisiana, ordinance that forbids solicitors to enter private property without the owner's permission.

[39] The Supreme Court has upheld the regulation of parades on public streets in *Cox v. New Hampshire*, 312 U.S. 569 (1941); parades and picketing near courthouses in *Cox v. Louisiana*, 379 U.S. 536 (1965); and restrictions on the placement of adult movie theaters in certain public areas in *Young v. American Mini Theatres, Inc.*, 427 U.S. 50 (1976).

[40] In *Parker Corp. v. Utah*, 285 U.S. 105 (1932), the Court upheld a state ordinance prohibiting tobacco advertising on billboards. In *Lehman v. City of Shaker Heights*, 418 U.S. 298 (1974), the Court upheld a city ordinance which banned all political advertising on city transit systems.

[41] In *Kovacs v. Cooper*, 336 U.S. 77 (1949), the Court upheld an ordinance banning the use of sound trucks and loudspeakers on city streets.

[42] In *Chaplinsky v. New Hampshire*, 315 U.S. 568 (1942), for example, the Court upheld a statute outlawing the public use of offensive, derisive or annoying words.

[43] See *Giboney v. Empire Storage and Ice Co.*, supra, note 16. In *United States v. O'Brien*, 389 U.S. 814 (1967), the Court upheld a statute which prohibited the burning of draft cards.

[44] See e.g., *FCC v. Pacifica Foundation*, 438 U. S. 726 (1978).

[45] In *Lehman v. City of Shaker Heights*, the Court reasoned that the government can treat varied types of public places differently for purposes of regulating the exercise of First Amendment rights: "The truth is that open spaces and public places differ very much in their character, and before you could say whether a certain thing could be done in a certain place you would have to know the history of the particular place." Although American constitutional jurisprudence, in the light of the First Amendment, has been jealous to preserve access to public places for purposes of free speech, the nature of the forum and the conflicting interests involved have remained important in determining the degree of protection afforded by the Amendment to the speech in question. See 418 U.S. 298, 302-03 (1974).

[46] 5 *U.S. Code Annotated*, Section 552 (1977 & West Supp. 1980).

[47] *Ibid.*, Section 552b(b) (1977).

[48] *Ibid.*, Section 552a (1977 & West Supp. 1980). The Privacy Act covers personal information maintained in a system of records from which information can be retrieved by using personal identifiers.

[49] 5 *U.S. Code Annotated*, Appendix I, Federal Advisory Committee Act (West Supp. 1980). Section 10 of the Federal Advisory Committee Act relates to the procedures, notice requirements, and appropriate record-keeping standards of the FACA.

[50] U.S., Federal Advisory Committee, *Eighth Annual Report Covering the Calendar Year 1979* (Washington, D.C.: Government Printing Office, March 1980), p. 1.

[51] Jeffrey A. Sar, *Federal Advisory Committee Act: A Key to Washington's Back Door*, 20 South Dakota Law Review 380-400 (1975).

[52] The law regarding the publication of the *Federal Register* is contained in Title 44 of the *U.S. Code Annotated* (1969 & West Supp. 1980).

[53] 44 *U.S. Code Annotated*, Section 1507 (1969).

[54] *Ibid.*, Section 1902 (1969).

[55] *Ibid.*, Section 701 et seq. (1969).

[56] *Ibid.*, Section 1902 (1969) states: "Government publications, except those determined by their issuing components to be required for official use only for strictly administrative or operational purposes which have no public interest or educational value, and publications classified for reasons of national security, shall be made available to depository libraries. . . ."

[57] See Luther J. Carter, "Yearly Report on Carcinogens Could Be Potential Weapon in the War on Cancer," *Science*, 9 February 1979, p. 525.

[58] The National Technical Information Service carried out the provisions of Sections 1151 through 1157 of Title 15 of the *U.S. Code Annotated* (1974), relating to a clearinghouse for technical information. See statement of organization.

[59] 15 *U.S. Code Annotated*, Chapter 9 (1978). See T. Scannell, "Global Study on Earth's Atmosphere Underway," *Computerworld*, 5 February 1979, p. 17.

[60] See 44 *U.S. Code Annotated*, Section 1901 et seq. (1969).

[61] See A. C. Gordon and J. P. Heinz, *Public Access to Information*, 68 Northwestern University Law Review 280-432 (1973).

[62] See for example the disclosure regulations of the Food and Drug Administration as contained in Title 21 of the *Code of Federal Regulations* (1980) and the regulations of the Consumer Product Safety Commission which are found in Title 16 of the *Code of Federal Regulations* (1980).

[63] Currently, the Office of Technology Assessment (OTA) is studying both issues as a part of its project on the "Societal Impacts of National Information Systems." OTA is part of the Congress and is performing this study at the specific request of interested congressional committees.

[64] The Federal Communications Commission's "personal attack rule," for example, permits individuals who are the subject of certain types of personal criticism disseminated over broadcast channels to obtain broadcast time to reply.

[65] See M. L. Everett, *FCC License Renewal Policy: The Broadcasting Lobby Versus the Public Interest*, 27 Southwestern Law Journal 325-39 (1973).

[66] See *The Fairness Doctrine: Time for the Graveyard?* 2 Fordham Urban Law Journal 563-86 (1974).

[67] J. L. Wilson, *The Fairness Doctrine: Big Brother in the Newsroom*, 61 American Bar Association Journal 1492-94 (1975).

[68] R. Schiro, *Diversity in Television Speech: Balancing Programs in the Eyes of the Viewer*, 27 Case Western Reserve Law Review 336-69 (1976).

[69] *Miami Herald Publishing Co. v. Tornillo*, 418 U.S. 241 (1974).

[70] See *Administrative Law—Hearings Before the Federal Communications Commission. Fact that Applicant for TV License had Blacks on its Board Must be Accorded a Comparative Merit by Commission*, 24 Catholic University Law Review 135-45 (1974).

[71] *Ibid.*

[72] 47 *U.S. Code Annotated*, Section 396(a) and (g)(2)(a) (1962 & West Supp. 1980).

[73] U.S., The Carnegie Commission, *A Public Trust: The Report of the Carnegie Commission on the Future of Public Broadcasting* (New York: Carnegie Corporation, 1979), pp. 19-20.

[74] See O. G. Chase, *Public Broadcasting and the Problem of Government Influence: Towards a Legislative Solution*, 9 University of Michigan Journal of Law Reform 62-112 (1975).

[75] *Ibid.* See M. K. Lindsey, *Public Broadcasting: Editorial Restraints and the First Amendment*, 28 Federal Communications Bar Journal, 63-100 (1975).

[76] 22 *U.S. Code Annotated*, Section 1461 (1979 & West Supp. 1980).

[77] Doug Hill, "Public Television in Crisis: This Could be the Countdown to Extinction," *Panorama*, December 1980, p. 47.

[78] See *National Broadcasting Company v. United States*, 319 U.S. 190 (1943).

[79] See H. H. Howard, *Multiple Broadcast Ownership: Regulatory History*, 27 Federal Communications Bar Journal 1-70 (1974).

[80] B. M. Owen, *Newspaper: Television Station Joint Ownership*, 18 Antitrust Bulletin 787-807 (1973).

[81] *Symposium on Developing Legal Issues in Cable Communications*, 24 Catholic University Law Review 677-898 (1975).

[82] See Proceedings of the Federal Trade Commission Symposium held in December, 1978, for discussions of the Industry Structure of the Press. In economic terms, broadcasting has almost pure public good characteristics (one additional receiver produces additional revenue while causing little or no additional cost), unless program costs rise. In contrast, newspapers have a modest extra cost to produce and distribute one more copy of the paper. See C. J. N. Rosse, "Daily Newspapers, Monopolistic Competition, and Economies of Scale," *American Economic Review* 522 (May 1967).

[83] There are competitively owned newspapers published in only 35 of the 1,536 cities with daily newspapers (*Washington Post*, 16 December 1978, p. C-11). According to popular press reports, four out of five leading papers in Paris are owned by Robert Hersant, who was formerly sentenced to ten years of "national indignity" for collaborating

with the Vichy Government during World War II. Hersant controls ten other papers and twenty magazines in France. In the view of some observers, only one daily in France, *Le Monde*, is not owned by "right-wing financial interests." *Parade Magazine, Washington Post*, 17 December 1978, p. 1.

[84] See Neal Friedman and Charles Concini, "Who, Me a King-Maker?" *Washingtonian*, November 1978, p. 19.

[85] W. T. Gormly, Jr., *The Effects of Newspaper, Television Cross Ownership on News Homogeneity* (Chapel Hill: Institute for Research and Social Sciences, 1976).

[86] See B. H. Bagdikian, *The Information Machines* (New York: Harper and Row, 1971).

[87] Y. M. Braunstein, "The Potential for Increased Competition in Television Broadcasting—Can the Market Work?" ed. T. R. Haight, *Telecommunications Policy and the Citizen* (New York: Praeger Publishers, 1979).

[88] See, for example, cases cited in note 40 supra.

[89] See R. I. Kohn, *Cable Television: To What Extent Does the State Regulate?* 49 Los Angeles Bar Bulletin 513-16 (1974); *Cable Television: The Practical Implications of Local Regulation and Control*, 27 Drake Law Review 391-420 (1977-1978). Cf. *FCC v. Midwest Video Corp.*, 440 U.S. 689 (1979).

[90] *Houchins v. KQED* 438 U.S. 1 (1978). See 47 *U.S. Code Annotated*, Sections 315(a) and 312(a)(7), (1962 & West Supp. 1980). The constitutionality of Section 312(a)(7) is currently before the Supreme Court. *CBS v. FCC, NBC v. FCC, ABC v. FCC*; 80-201 et al. (1980).

[91] See *Midwest Video*; and *ACLU v. FCC: Are CATV Access Channels Common Carriers?* Utah Law Review 994-1006 (1975).

Chapter II

Access to Information

By Lawrence S. Robertson

Chapter Two identifies and discusses policies that give individuals, organizations and the government the right to obtain information. In the analysis of these information rights, three types of access policies are examined: (1) the policies that permit individuals and organizations to obtain information held by the government; (2) the policies that permit individuals and organizations to obtain information held by individuals or private sector organizations; and (3) the policies that permit the government to obtain information held by individuals or private sector organizations. These policies may be embodied in constitutional and common law, but more often are established by statute.

In addition, Chapter Two examines the effect of the impact of access policies on the flow of information and on the basic democratic goals that information availability policies serve. There is also a brief discussion of the impact of new information technologies on the effectiveness of implementing current access policies.

Access policies provide an important means of enhancing the availability of information. Unlike dissemination policies, access policies do not require holders of information to disclose information in an affirmative manner. Instead, they give those seeking information the right to identify and obtain access to it in circumstances in which the holder of the information is unwilling to disclose it. Unlike dissemination policies which stress maximizing the availability of information, access policies focus on making the "right" information accessible to the "right" users.

Laws or regulations that authorize persons to obtain information from public or private institutions generally serve the same societal goals as laws requiring information dissemination. Public access to such information permits popular oversight of decision-making in government and private sector organizations. Access to information is essential if the public is to participate effectively in political, economic and other societal decisions. Access policies also permit the public to obtain information, which, when put into circulation, contributes to the creation of an information-rich society. Because access policies exist to provide users with specifically requested information, these policies are particularly significant in improving individual decision-making and the quality of individual lives.

Public Access versus Secrecy. There is, however, a potential conflict between the goals served by open access policies and the legitimate interests served by governmental and institutional secrecy. The reasons for secrecy include the attainment of traditional societal priorities, such as national security, effective law enforcement, government efficiency, and the vigorous operation of the free enterprise system. Significant information policy issues focus on how to develop and implement policies which balance these competing societal goals.

There are critical controversies about policies that allow access to Federal Government information. These controversies stem from complex questions such as: What standard should be used in permitting public access to government-held information? Are existing access mechanisms adequate vehicles for individuals to obtain government-held information without resort to legal intervention? What is the role of private information entrepreneurs in gaining access to and then redisseminating government information?

Policies authorizing the government to obtain information held by individuals and organizations serve a different set of interests than those served by public access policies. These policies of government access contribute to the government's ability to discharge its national security, law enforcement and general welfare responsibilities effectively. At the same time, unfettered government access could threaten personal liberty and privacy interests, as well as the autonomy of private sector organizations. Here again, policies need to reflect a balance of competing societal goals.

The views and conclusions contained in this chapter reflect those of the author, and should not be interpreted as necessarily representing the official policies or recommendations of the National Telecommunications and Information Administration, the U.S. Department of Commerce, or the U.S. Government.

Policy Issues for Government Access. Government access to privately-held information raises several difficult policy issues. Should agencies develop and promulgate formal standards that must be met before agencies can initiate information requests? What types of information collection methods are appropriate? Should only certain types of federal agencies—such as non-regulatory agencies—be authorized to run statistical programs or operate industry-wide information collection programs? Should policies for government access be developed with reference to the government's policies for the subsequent use and disclosure of the information?

Access requests by the public to private organizations raise different issues than do requests for public access to government information or requests for government access to privately-held information. Should the extent of the public access depend upon the size of the organization, its form of ownership, its estimates of the effect of public access on its competitive position, or other factors?

The issues discussed in this chapter involve fundamental questions of information policy. How much information is available? Is it the "right" information? To whom is the information available and under what circumstances? Much is at stake in answering such questions. The answers affect society's ability to obtain the full benefit of governmental programs, the efficiency of governmental and private organizations, and the effectiveness of public oversight of the government or of other powerful organizations.

Access To Information Held by the Government: A Summary

The concern that even a democratic government would have the power to threaten the rights of individuals and oppress minorities is of particular significance to the private citizen.[1] Access to information about government activity is important in protecting these individual rights, as well as in allowing public oversight in decision-making, in checking corruption, and in minimizing the risk of abuse of citizens' rights. Policies promoting access rest on the assumption that the government is less likely to do ill-advised or evil things if its actions are subject to public scrutiny.

Balanced against the important interests served by granting broad access rights to government-held information is a recognition that government may be able to best serve the public only if certain kinds of activities can proceed in confidence, out of the view of the public and of foreign governments. Significant types of information protected from access include national security, foreign relations, law enforcement, confidential personal and business information, as well as information about internal government decisions. As discussed in the previous chapter, even in regard to protected information, there are controversies about the wisdom of specific access and dissemination decisions.

The Constitution and the Common Law

Several provisions of the Bill of Rights establish rights of access for the public to government-held information. For example, the due process clause of the Fifth Amendment contains public scrutiny rights.[2] The Sixth Amendment gives individuals accused of criminal conduct the right to obtain information about the nature and cause of the accusations against them, and the right to a public trial, thus permitting public scrutiny of the judicial process, and presumably protecting defendants from the use of arbitrary, secret trial (Star Chamber) procedures.

The common law doctrine of "public records" also provides an important access right. The public records doctrine is a legacy of medieval and ecclesiastical legal systems that made land records, as well as records of marriages, births and deaths, public record information In this country, the system of public records has evolved in the states and in the Federal Government to include, in addition to land and vital statistics information, information about mortgages, security interests and most types of judicial proceedings. Many states have statutes which codify (and, in most cases, modify) these common law public records doctrines.

Information about Congressional Floor Proceedings

Although the Senate at one time met solely behind closed doors, as did the Constitutional Convention, the deliberations of Congress are now generally available in the form of public hearings, reports and transcripts of floor debates. Sometimes proceedings on the floor of the House are televised and broadcast over cable television. Senate Majority Leader Howard H. Baker recently introduced S.R.20 which calls for televised coverage of Senate proceedings, "calling it 'simply a modern-day extension of the public gallery and the public's right to view the legislative process of the government on a first hand basis.' "[3]

Members of Congress and many state legislators are now required by statute to disclose information about their private financial affairs. Such legislation helps the public to focus on potential sources of bias or possible conflicts of interest. Financial disclosure legislation has been found constitutional despite assertions that such mandated disclosures infringe upon legislators' privacy rights.[4]

The federal election laws require numerous disclosures aimed at regulating campaign financing.[5] Provisions include a requirement that candidates disclose the amounts and sources of contributions to their campaigns and the amounts of their expenditures.[6]

Information Held by the Executive Branch

Numerous statutes give individuals the right to obtain information held by the Federal Government, and to a slightly lesser extent, to information held by state and local governments. Although the information policy implications of many of these statutes are discussed in the preceding chapter, this section briefly identifies and reviews four federal access statutes of central importance.

Administrative Procedures Act (APA). The APA[7] generally requires agencies to base decisions on openly available information and significant participation of interested persons. Thus, the APA makes some information about the workings of government available to the public.

Among the access mechanisms in the APA is the right of potentially affected parties to receive notice of agency adjudicative and rulemaking proceedings, the right to participate by submitting written and sometimes oral comments, and in some cases to cross-examine witnesses. The Act requires agencies to develop and make public written decisions setting forth the reasons for results of adjudications. The Act further requires that agencies make available to the public a full record of adjudicated decisions, with the exception of internal agency memoranda or accounts of the actual deliberations of the decision-makers.

The APA's procedural and information requirements can impose substantial delays and costs on agency decision-making. However, the APA makes a vital contribution to the goal of permitting members of the public to scrutinize and participate in governmental decision-making.

The Freedom of Information Act (FOIA). The FOIA[8] is referred to in the previous chapter in the discussion of its use as a dissemination law. The primary purpose of the Act, however, is to serve as a mechanism to facilitate public access to government information. The principle as well as the access mechanisms of the Freedom of Information Act have rapidly gained wide acceptance. All 50 states and the District of Columbia now have some type of freedom of information law.[9]

Of course, the FOIA and related laws do not ensure that the government will be a good or even an honest public servant, but they provide a procedure for the public to keep track of the government's performance.

There are limits to what the FOIA can accomplish. The efficacy of its access mechanisms still depends on the good faith of government agencies in locating and disclosing the existence of requested information, even if an exemption is then claimed.[10] Also, the FOIA does not apply to Congress, the courts, or the personal papers of the President, although the Presidential Records Act[11] does provide a mechanism for obtaining some Presidential materials.

Government in the Sunshine Act. This law also places active obligations on federal agencies to promote public access to information.[12] The Act provides the public with access to certain federal agency decision-making meetings, by requiring that agency meetings be open to the public. Agencies covered by the Act can close a meeting if it is "likely" to disclose information that comes within one of the Sunshine Act's ten disclosure exemptions. By including exemptions that are similar to exemptions in the FOIA, the Sunshine Act attempts to address the tension between the interests served by access and dissemination and the interests served by secrecy.

Inspector General Act of 1974. This law has created new sources of information about the operations of government.[13] The Act created Inspector General offices in most federal agencies to investigate and police unlawful agency activities. From an information policy standpoint, two of the mechanisms created by the Act are most important. First, the Act requires Inspector Generals' offices to file reports with the Congress. It has been suggested that this reporting process may lead to greater accessibility of heretofore confidential information about internal agency operations.[14] Second, the Act requires that Inspector Generals' offices promptly and confidentially handle the complaints of "whistle blowers." Protection of the identity of those who could otherwise only leak information publicly (thus risking punishment) can be viewed as protecting an information source, in much the same manner as the press and law enforcement authorities attempt to protect their sources. In this way individuals may be encouraged to provide information which will enable government agencies to improve their performance before there is publicity and public pressure for agency reform.[15]

Effect of Technological Advances on Access to Federal Information

Advances in modern technologies such as computers, telecommunications, television and micrographics are working to make government-held information more accessible to the public.

It is possible that advanced computer technology could be used to place all publicly accessible federal information in data bases for ready public access. Although initially, access terminals are likely to be limited to libraries and designated repositories, ultimately every television set could be a terminal. The new technological equipment could make federal information more widely available at far less cost.[16] Both agencies and requesters of information could avoid expensive and time consuming access requests. Already, in the government's attempt to comply with FOIA access requests, concerns have been expressed about whether the costs —which are not ordinarily fully recovered from the requester—are too high when compared to society's benefits in having the information disclosed. Although agencies can charge requesters for the direct costs of searching for and duplicating files, in many instances, agencies subsidize these costs.[17] In addition, pricing policy for FOIA requests raises questions about the extent to which the private sector should profit from resale of information obtained under the statute.

Federal Program Information Act. Congress has recently taken several actions to direct or encourage the use of modern technology to promote access to government-held information.[18] One such law, the Federal Program Information Act,[19] is intended to establish a way to facilitate effective access to information about the many federal assistance programs. This Act directs the Director of the Office of Management and Budget to create a computerized data base called the Federal Assistance

Information Data Base. The information contained in the data base is to be available to the public on request. Selected requesters may use computer terminals to obtain information interactively, as well as making written requests to obtain a printed record.

The Federal Program Information Act might serve as a model for future access mechanisms in situations which concern the role that the Federal Government and possibly private sector firms can play in the dissemination of federally-generated information. Until now, it has been thought to be impractical to grant the public access to government information stored in government-controlled computers—especially if the data bases contain sensitive information which would not be subject to access under the FOIA. This belief has been based at least in part on shortcomings in computer security and access control technology. Recent improvement in computer technology probably makes it technically practical to provide cost-effective and expeditious public access to massive amounts of government-held information.

Access Rights and Public Policy

Access to government-held information is probably the most important type of access right because of its critical importance in the public's effort to understand and evaluate the government's performance. In addition, the government's role as a producer of vital scientific, cultural, and economic information means that public access to this information is crucial to the creation of a vigorous social, cultural, and economic environment. It is significant then, that there have been allegations that the FOIA has not been adequately utilized for its intended purposes of informing the press and the public. More frequently, corporations use the FOIA for business purposes, criminal offenders use it to identify parties or strategies that contributed to their apprehension, and foreign governments use it for espionage and policy purposes, or for bolstering their domestic industries.[20] Based on the FOIA, the American policy of granting foreign countries access to government-held information has occasionally resulted in actions which may not be in our own best interest. By one informed observer's account, "the FBI and the CIA regularly process and occasionally ship documents to requesters from Communist and Third World countries."[21]

It is thus clear that access to some types of government-held information can pose a possible threat to vital national interests such as national defense, law enforcement and efficient government operation. Tension will continue to exist between the interests served by full public access to government-held information, and the interests served by secrecy. These interests are invariably difficult to balance and to maintain in constant equilibrium.

Criteria for Access

Current access policies have accomplished a great deal in releasing government-held data. However, with few exceptions, agencies' policies which determine whether to release or withhold information are not well-defined or elaborated. Most of the significant access schemes, such as those found in the Freedom of Information Act and in the Sunshine Act, place principal emphasis exclusively on the subject matter of the information. Agencies attempt to predict the damage that access to particular information would cause to various interests enumerated in the laws.

However, in evaluating requests for access to personal information submitted to the government by organizations or individuals, agencies are authorized to take factors other than subject matter into consideration. For example, in *Getman v. N.L.R.B.*,[22] two labor law professors used the FOIA to petition the National Labor Relations Board (NLRB) for release of the names and addresses of employees of 35 businesses in which there were union representation elections. The court first determined that the name and address information were personal; however, the court ordered the information released because the identity of the requesters and their purpose indicated that the public good resulting from disclosure would outweigh the comparatively modest damage to subjects' privacy.

In another case, *Wine Hobby USA, Inc. v. IRS*, in which information requested was similar to that released in the *Getman* decision, the court upheld the Treasury Department's refusal to release the names. The opinion which was handed down balanced the individual's privacy rights, although admittedly slight, against the public interest served by disclosure. The requester had a commercial purpose— the use of names for a mailing list. The court decided that the individual's privacy interest outweighed the public's disclosure interest.[23]

Opposing Decisions about Access. The *Getman* and *Wine Hobby* opinions illustrate that courts reach opposite decisions about access when they take relevant facts beyond subject matter into account. When there is a conflict between a requester's interest in obtaining information and the government's interest in supporting restrictions on disclosures, agencies need to consider several factors before responding to access requests:

- The identity of the requesting party. Under some circumstances it may make a difference whether the party seeking access is a family member, a business partner, or a public-interest organization.
- The identity of the subject about whom information would be released. It can be relevant to know whether he or she is a public figure, a recipient of a government benefit, or the object of government regulation or penalty.
- The nature of the information sought. Even within a category such as "commercial information," the sensitivity of the information needs to be evaluated carefully, as do the probable consequences of disclosure, and the government's desire to keep the information confidential.

- Any special circumstances that affect the government's relationship to the information (e.g., information obtained on a promise of confidentiality).

Although selective dissemination based on these kinds of criteria may seem logical and appropriate, the discrimination used in the selection process is only the first step in protecting the confidentiality of the information disseminated. How an agency can prevent requesters of sensitive information from making it public or sharing it in an inappropriate manner has become an important government concern. Possible solutions include requiring requesters to execute confidentiality agreements, or adopting statutory penalties for redissemination of the confidential material. However, all these efforts to control release raise the important question of whether the benefits of openly available information may be lost.

Equalizing Access

There may be a need to provide more equal opportunity for access to all individuals. Most of the existing access mechanisms favor organizational and institutional requesters, the wealthy, and the well-educated, who comprise a very select group. Although it may be impossible to design a system that negates the natural advantages of such groups, access policies could attempt to minimize these advantages. Equality of access is important in an information oriented society in which superior ability to gain access to information can become the ultimate advantage.

Information brokers and publishers create new business opportunities in the attempt to achieve better access for their customers than for other groups in society. A growing number of private organizations obtain government information and compile it for sale and distribution to consumers. Frequently these organizations perform a vital function by disseminating this information more broadly and usefully; however, there is some concern that the public ends up paying repeatedly for the same information—as taxpayers when the government develops the information, again when it services the entrepreneur's access request, and again as customers in purchasing the repackaged information from the entrepreneur.

Protections Against Unlimited Access

Several categories of information are protected from unlimited public access by specific exemptions in federal statutes, particularly in the FOIA. These include national security, law enforcement, intra-governmental, and commercial information.

National Security Information

Although it may be appropriate to restrict access to national security information, there continues to be sharp disagreement about specific policies of restriction. There are two areas of particular controversy characterized by the following questions. First, can there be relatively innocuous information in the national security category? And second, can the government protect sensitive foreign intelligence adequately?

Is Too Much Information Withheld? The question of the correct amount of information to withhold is a difficult one to answer. The standard for withholding information under the FOIA, for example, is based on consideration of whether the release of such information could reasonably be expected to cause damage to our national defense or foreign relations. Thus, the Executive Branch, and to a somewhat limited extent, the courts, have to predict the impact of a potential disclosure. Decisions that rest upon hypothetical projections of future impacts are difficult to make and to evaluate. They encourage controversy, particularly when the information is the target of strong, competing demands for availability or secrecy.

Adequacy of FOIA Exemptions. Stansfield Turner, the former Director of the Central Intelligence Agency (CIA), recently testified that the agency requires a nearly complete exemption from the FOIA's disclosure requirements.[24] The CIA believes that the existing exemption for national defense and foreign policy information is inadequate for two reasons: (1) a small amount of sensitive material maintained by the intelligence community is not directly related to the national defense or foreign policy, and therefore does not qualify for an exemption; but, more importantly, (2) without a total exemption, informants, foreign governments and other sources of sensitive, confidential information withhold it because they fear that the CIA might disclose their identity or the information.

There is great opposition to the CIA's exemption request. The Department of Justice has testified, for example, that it is not persuaded by the CIA's arguments "for sweeping file exemptions," and has contended that the CIA has not shown that the FOIA prevents it from protecting the confidential information in its files.[25]

The policy question here concerns the proper standards for withholding requested information. Should authority to withhold depend on what person or organization maintains the information? Or should there be an assessment prior to disclosure of the likely consequences of disclosure? The Privacy Act reflects the former approach. It permits the CIA and criminal law enforcement agencies to take a general exemption from most of its requirements.[26] But there is also a legitimate view found in the FOIA, that limitations on disclosure of national security information should be based on an assessment of the consequences or implications of particular disclosures, rather than on the identity of the information holder.[27]

Law Enforcement Information

The government places limits on the flow of some types of information in order to detect, apprehend, and prosecute violators of the law. Information relevant to criminal investigations includes stigmatizing personal information, sensitive business records, and detailed accounts of agency practices. Policies restricting dissemination of law enforcement information limit the accessibility to this information on the basis of the potential effect of its disclosure on the government's ability to investigate and prosecute offenders.

Numerous statutes and regulations restrict the availability of law enforcement information. Exemption Seven in the Freedom of Information Act, for example, permits an agency to withhold investigatory records compiled for law enforcement purposes, but only to the extent that disclosure would: (1) interfere with the enforcement proceedings; (2) deprive a person of a right to a fair trial; (3) constitute an unwarranted invasion of privacy; (4) disclose the identity of a confidential source; (5) disclose investigative techniques and procedures; or (6) endanger law enforcement personnel.[28]

The provisions of the Federal Privacy Act permit agencies to exempt law enforcement files and those files compiled in reasonable contemplation of litigation from subject access.[29] In addition, numerous statutes make specific types of law enforcement information secret; for example, grand jury minutes and proceedings,[30] and summaries of arrests and sometimes convictions, are not available to the public.[31]

As with national security information, the nature and extent of limits upon the disclosure of law enforcement information is controversial. Three issues are especially significant. First, when should limitations be placed on disclosure of investigatory information? Second, when should they be removed? And third, what specific kinds of interests should these limitations protect?

When Should Limitations be Placed on Disclosure? Law enforcement officials argue that any type of information compiled for possible use in an investigation should not be disclosed to the public. The Department of Justice has recently announced plans to propose to Congress several amendments to the FOIA, which include a more comprehensive exemption for investigative and other law enforcement records.[32] However, the press and some public interest groups claim that information, to be exempt from disclosure, must be related to a specific on-going investigation.[33] Thus, information compiled for general intelligence purposes should, in their view, be available to the subject of the record. One Federal District Court has agreed with this view. The court found personal information compiled for intelligence purposes not to be the type of investigatory record protected by the investigatory records exemption of the FOIA.[34]

The Department of Justice, also, takes the position that the FOIA's privacy exemption, and its exemption for information designated confidential by other statutes, require federal law enforcement agencies to withhold summaries of arrest and conviction records. The Department relies in part upon statutory language which authorizes it to "exchange these records (criminal history records) with and for the official use of authorized officials of the Federal Government, the states, cities and penal and other institutions."[35] The Department reads this language as implicitly prohibiting the Department's release of criminal history records to the public.

The press has criticized the Department of Justice for its failure to release criminal history records—most recently in connection with a well-publicized lawsuit brought by the Reporters' Committee for Freedom of the Press. In its lawsuit, the Reporters' Committee is seeking access to arrest and conviction information about several individuals thought to have ties to organized crime. The Reporters' Committee claims that the arrest and conviction records that they seek have at one time or another been in the public record, and it is illegal to shelter the information merely by reconstituting it as historical summaries.[36]

Access to Law Enforcement Information. There has not been much thought given to the effect of the passage of time on the availability of law enforcement information to the public, although there is some concern about this issue. For example, there is controversy about the optimal period of time for withholding investigative records. Although some courts have always recognized that under the FOIA, termination of an investigation does not make the investigative records automatically available, the 1974 amendments to the FOIA made clear that investigatory records do not become automatically available at the cessation of the investigation. Certain kinds of damage, such as disclosure of investigative techniques, could occur regardless of the status of the investigation. Although at some point sufficient time elapses so that the likelihood of this sort of damage becomes minimal, there are few guidelines to use in setting the exact time period. One recent decision has indicated that once an investigation terminates, the privilege to withhold the investigative documents is of limited duration.[37]

Law enforcement agencies claim that premature release of investigatory information particularly endangers the safety of law enforcement personnel and of confidential sources.[38] Gary Bowdach, a federal convict, testified recently before the Senate Governmental Affairs Permanent Subcommittee on Investigations, that prisoners sometimes use the FOIA to discover the identity of confidential sources in order to threaten them to compromise criminal investigations.[39] Federal Bureau of Investigation (FBI) Director William Webster has called for a moratorium on release of investigative information in order to protect the identities of government sources.[40] However, the General Accounting Office's report on the effect of the FOIA's investigative records exemption on law enforcement capabilities found no evidence that this exemption fails to protect confidential law enforcement information adequately.[41]

Confidentiality of Previously Public Data. There is also disagreement about how much time should elapse before classifying as confidential law enforcement information which was previously available to the public. Information released at the time of arrest may often be of public interest; but there is controversy over the question of whether this information should continue to be available to the public five years after the event, particularly if there was never a conviction. There is additional disagreement concerning how long conviction records should be available to public inspection. Does conviction information remain public forever, or does it become confidential after a substantial number of years have elapsed? For example, a June, 1979, decision of the Supreme Court held that the subject of a ten-year-old contempt of court conviction in a notorious spy trial was no longer considered a public figure.[42] The interests at stake here were primarily privacy interests, not law enforcement concerns.

What Types of Interests Should be Protected? Law enforcement officials argue that they need to withhold any information whose disclosure might reasonably be expected to hurt their effective performance. In contrast, the press and other groups believe that restrictions should be more narrowly defined, and that protections should extend only to the effective conduct of a specific investigation and the ensuing litigation. According to the view of the press, certain negative possibilities, such as the public revelation of secret law enforcement procedures and methods, are too conjectural to be a proper basis for withholding information.[43]

Information about the Government's Internal Operations

Probably the most controversial non-disclosure policies protect information about the Federal Government's own operations. For example, Exemption Five of the FOIA, which covers inter and intra-agency memoranda or letters not normally available except in inter-agency litigation, raises substantial questions. Currently, Exemption Five covers only internal working papers such as opinions, policy formulations, and other analytical non-factual materials. Its purpose is to permit frank and open discussions within the government and to prevent premature disclosure of a variety of government actions.

In many cases, implementation of this exemption may lead to withholding more information than necessary. Some agencies have tried unsuccessfully to withhold such items as training materials,[44] budget appropriation proposals,[45] names and addresses of expert consultants,[46] and documents involving the sale of federally-owned real estate.[47]

The Government in the Sunshine Act uses a different approach to sheltering internal government information. Exemption Nine B permits agencies to close all or any part of meetings that are likely to result in premature disclosure of information "which would significantly frustrate the implementation of proposed agency action."[48] This exemption may allow agencies to withhold any information whose disclosure might conceivably affect their activities adversely.

Balance between Information and Secrecy. Information about the internal workings of the government is crucial to the public's continuing oversight of government operations. But secrecy is sometimes necessary for the government to operate in an effective manner. The question which must be posed is: How much government secrecy is needed, and under what circumstances? Should policies attempt to shelter agencies' internal deliberative processes? Or, conversely, should policies simply be formulated to deal with the "bottom line," (e.g., the effect of disclosure upon some specific and legitimate agency action)? Is there likely to be any practical difference between these two approaches? Do disclosures of information that reveal the deliberative process inevitably have an adverse impact upon agency action? At present, there are no satisfactory answers to any of these questions.

Commercial Information

Exemption Four of the FOIA permits federal agencies to withhold "trade secrets and commercial or financial information . . . which are privileged or confidential."[49] The exemption applies principally to information received from corporations and other business organizations, but also protects individuals from disclosure of their confidential financial information. The purpose of the exemption is to protect the competitive position of persons who provide information, as well as to promote the government's ability to obtain necessary information in the future.[50] An identical exemption in the Sunshine Act permits the closing of appropriate agency and advisory committee meetings in which such information will be discussed.[51] In addition, several dozen federal statutes specifically prohibit federal officials from disclosing certain trade secret and commercial and financial information.[52] The patent and copyright laws also permit individuals and firms to control access to information that embodies intellectual creations.[53]

Individual or Organizational Access to Information Held by and for the Private Sector

There are comparatively few policies that give individuals or organizations a right to obtain information from unwilling private sources. The demand for such a right has been discussed by consumer advocates, in particular Ralph Nader,[54] and is expressed in a few federal statutes.

Access in Return for Compensation

Generally, unless compelled by law to provide information at no cost, private sector organizations provide it only in return for reasonable compensation. This is true, at least in part, because requirements that private sector information be available to the public for little or no compensation would seriously impede the private sector's incentive to produce and maintain information.[55] Not surprisingly, those policies that do allow the public access to private sector information without adequate compensation are extremely controversial. For example, publicly held corporations and corporations in closely regulated industries, such as food and drug manufacturers, are required to provide public access to certain information. The Securities and Exchange Commission places similar requirements on corporations. Corporations complain that these regulations increase corporate costs, overwhelm an already uninterested consumer population, and risk divulging critical trade secret and commercial information to competitors. Private industry sources frequently criticize what they perceive as the Federal Government's failure to use the FOIA's Exemption Four to adequately protect private, commercial and financial information from public access.[56] There have been similar complaints about the use of information which is legally very different in the rebroadcasting of programs on cable television, as well as protests concerning the use of video recorders to copy commercial TV programs.

Access for Criminal and Civil Litigation

The rules of criminal and civil procedure can be used to obtain information from both individuals and private sector organizations. In addition to the constitutional right of a criminal defendant to compel the presence of witnesses on his behalf, the discovery process (through the provision of documents pertinent to the suit, which are received by request or subpoena) provides extensive information to litigants in civil and criminal proceedings.

Public Disclosure Laws

Perhaps the most important policies requiring the private sector to make information accessible to the public are a variety of public disclosure laws, many of which apply to the sale of goods and services. For example, the Department of Housing and Urban Development requires organizations that make certain types of land and real estate offerings to the public to submit detailed disclosures of all aspects of these offerings.[57] Similarly, organizations that make offers of stock or other types of equity or debt investments to the public must, under a law enforced by the Securities and Exchange Commission (SEC), publish a detailed prospectus describing these transactions.[58] In addition, the Department of Agriculture and the Food and Drug Administration require producers of some foodstuffs and most drugs and medicines to make detailed "label disclosures."[59]

Many other statutes, while not requiring direct disclosure to the public, do require private organizations to report information to government agencies. This information is then available, upon request, to members of the public. For example, the Securities and Exchange Commission requires all companies that are publicly owned (e.g., that sell stock to the public), to file with the SEC each year comprehensive financial and fiscal reports. These reports are available for public inspection upon request.[60]

Private Access to Private Sector Information

Individuals who are subjects of recorded information have substantial and growing rights of notice and access to the personal information held by private organizations. Much existing and most proposed information privacy legislation gives record subjects (and sometimes the public) a right to receive an explanation of the record-keeper's information practices and a description of the filing system being used. In all probability, most future bills will require that this explanation be made prior to the initiation of a record-keeping relationship with a particular individual, and will state that record subjects should usually have the right to see and copy their files. Notice and access rights already exist or are proposed for personal information held by credit grantors, health care providers, financial organizations, insurance organizations, researchers, educational institutions, and employers.[61]

Public Access to Private Sector Information

Statutes that give the public access rights to information from private organizations address issues that seem similar to those posed by public access to government-held information. There are, however, some significant differences. Some would argue that the public has less need to see privately-held or generated data because the power of private organizations to harm the public is not as extensive as is that of the government. Others would argue that some corporations, such as those selling unsafe products for example, can do substantial harm to individuals, and that consumers are entitled to protect themselves from foreseeable dangers.

On the one hand, public access to privately-held information assists decision-making and enhances welfare and diversity of ideas. On the other hand, it involves real costs. The very act of processing access requests and assembling and disclosing information is costly. Such disclosure may undercut an organization's competitive position or may "cheat" an organization out of the financial return it expected when it assembled, created, or produced a particular type or category of information. And finally, public scrutiny of private organizations has the inevitable effect of circumscribing legitimate corporate discretion and autonomy.

Trend toward More Disclosure. At present, the trend of policy seems clearly to be moving in the direction of greater public access to and scrutiny of private sector information. Several factors appear to be fueling this trend. As private organizations become larger and more powerful, they have a growing impact on society. This impact leads to greater public interest in information about certain private organizations. To the extent that their activities are intertwined with governmental interests—another increasing trend—arguments supporting the public's right to know about private organizations become more politically persuasive.

Then, too, our information-rich society seems to desire what information theorist Marc Porat calls an "information cushion."[62] People are more protected or "cushioned" if they can obtain maximum decision-making information. In this type of environment the 19th Century snake oil salesman would have a difficult time. He would not only have to disclose to buyers the contents of his potions, but would have to have testing information on file with both the Federal Trade Commission and the Food and Drug Administration to substantiate his claims.

Also, there is a perceptible change in society's feelings about the "privateness" of private organizations. A hundred years ago, organizations were accountable to a board of directors or to a group of stockholders. Today, the use in the vernacular of a phrase such as "corporate responsibility" attests to the perceived accountability of private organizations to the public. Increasingly, statutes and court decisions impose public responsibility on private organizations.[63]

In this kind of environment it is hardly surprising that more and more information produced and maintained by private industry is available to the public. The challenge in the years ahead will be to refine and shape policies for public scrutiny of private industry, to ensure that industry retains the incentive and autonomy to function effectively, while at the same time informing the public adequately.

Factors to Consider in Access Policies

Today access policies are based on a multitude of factors. With the private sector's diversity, a well-defined approach to policies granting access to private organizations may be preferable, as long as there is an evaluation and a balancing of appropriate factors. These factors might include:

- The effect of access on the organization's competitive position. Under the FOIA, for example, agencies can choose to withhold confidential, commercial and financial information submitted by private organizations, if the disclosure would cause substantial competitive harm to the organization.[64]
- The potential harm that might occur through disclosure resulting from access policies. Although not every access request should be denied because disclosure would substantially harm an organization's place in the market, this factor should always be given weight in formulating access policies and decisions.
- The risk that disclosure would strip the organization of the rewards of developing state-of-the-art or otherwise secret or advanced processes. If so, the private sector's incentive to devote resources to developing new products or techniques could be undermined. For this reason the copyright, patent, and trade secret laws limit access to certain types of information.
- The impact of an organization's form of ownership on its disclosure obligation. Under existing law the public has greater rights of access to information held by publicly owned corporations than to information held by privately owned or closely held corporations. Organizations that offer members of the public ownership interests have a significant obligation to give the public information about the "product" that they have been invited to buy. However, the public's interest in the operation of certain privately owned firms may be just as compelling. Many factors other than existing or potential ownership may give the public an interest in obtaining information about an organization. These factors need to be better understood.
- The effect of an organization's size on its disclosure obligation. Large, complex organizations ordinarily have a greater impact on society than small organizations. In consequence, some would argue that individuals ought to be able to obtain more information about large organizations than about small ones. In practice, a few reporting requirements take this approach. The FTC's line of business reporting requirements, for example, are applied only to the 400 largest corporations.[65] Government antitrust and other regulatory mechanisms with their accompanying information demands also tend to concentrate on the largest corporations. However, if these larger corporations are in national security or defense industries, access may be denied.
- An organization's product line could affect its disclosure obligation. Many existing reporting requirements are based on precisely this approach. Organizations that market products that are potentially injurious to consumers' health, such as food stuffs and drugs, are subject to extensive reporting requirements. These requirements not only pertain to disclosing information about the product itself, as in food and drug labeling, but also to general disclosures about the organization's operations. For example, the Food and Drug Administration requires manufacturers of food stuffs and drugs to make detailed background information available to the agency on request.[66] Organizations that manufacture products that are important to the nation's welfare, such as petroleum products, are also subject to more extensive reporting requirements.[67] Frequently, organizations that manufacture or market goods that are very expensive—and therefore more likely to have a significant impact upon consumers—are subject to additional reporting requirements. Sellers of mobile homes, automobiles, and recreational homes are found in this category.[68]
- An organization's sales techniques could affect its disclosure obligation. Some of the regulatory agencies, and the FTC in particular, have argued that certain sales techniques such as door-to-door sales, have a tendency to be unfair and deceptive. To counteract this effect, the FTC requires some organizations using these techniques to make detailed financial and sales information available both to the FTC and to their customers.[69]
- An organization's customer profile could affect its disclosure obligation. Organizations that deal with vulnerable consumers, such as children or the elderly, might have special disclosure obligations. These categories of consumers are thought to be less inclined and less able to obtain information about a particular product or about organizations that sell it. As a result, some federal agencies require these organizations to make additional information available to the government and to consumers. The Depart-

ment of Health and Human Resources, for instance, requires proprietary nursing homes to make financial and organizational information available to the agency as well as to prospective patients or to their families.[70]

Conflicting Criteria

Each of the enumerated factors appears to provide a logical basis for requiring private organizations to make information available to the public. But what happens when these criteria conflict with each other or with legitimate needs for secrecy? For example, several manufacturers of prescription drugs recently testified that they will not market certain "wonder drugs" in this country because they believe that the FDA's test reporting and public filing requirements will compromise critical trade secret information.[71]

Should the interest in safeguarding the confidentiality of trade secret information prevail over the interest in obtaining detailed information about products that are potentially hazardous? The answer to this question may depend upon a calculation of risks and benefits in a particular case. But if a case-by-case approach is taken, industry may not wish to risk the lessened predictability of decisions which are in its own interest. Each answer may provide differing degrees of access to differing types or amounts of information; however, it is important to recognize the information factors that are at stake, in order to take account of them in making policy decisions about public access to privately generated or held information.

Government Access to Information Maintained by Private Sector Organizations or Individuals

Information is as vital as revenue to the government's ability to function effectively. The Federal Government, in particular, requires continuous input of information to accomplish its programs, enforce laws, monitor the environment, and plan for the future. By any measure—collection, processing, or storage— the federal information appetite is enormous. Our government voraciously consumes information about citizens, businesses, the environment and itself. For example, the Office of Management and Budget estimates that Americans annually spend 785 million hours filling out government forms.[72]

The Federal Government's information collection practices raise many concerns. The burden of preparing information in response to government requests is not always "fairly" distributed within the private sector, and may not always be worth the cost to both the government and the information providers. In general, there are concerns about whether the government's information collection effort operates rationally, efficiently, and fairly.

The circumstances and manner of government access to the information of individuals and private organizations has significant implications for basic democratic goals. The government has a legitimate need for substantial amounts of information about persons and organizations in order to operate its mandated programs effectively. But the collection of this information can pose a threat to the autonomy and privacy of individuals, as well as to the autonomy of private enterprise. The purpose of the constitutional protections of due process of law and freedom from unreasonable searches is to limit government's power to intrude on and oppress citizens or organizations while involved in uncontrolled collection of information. Unnecessary collection of information from private organizations might adversely affect the capacity of these organizations to make effective economic or operational decisions.

Access Policies Balance Divergent Needs. Government access policies, then, must balance legitimate needs to obtain information against the need to safeguard individual and organizational prerogatives. The Constitution does not give federal agencies express authority to obtain information. However, Article II, Section III, charging the President to take "Care that the Laws be faithfully executed," gives agencies implicit constitutional authority to collect information necessary or relevant to accomplish their missions.[73] There are over 10,000 federal statutes which grant agencies specific authority to obtain information from individuals and private sector organizations.[74] The Federal Trade Commission Act, for example, empowers the FTC to require persons and companies whose businesses affect commerce to file, in a form prescribed by the FTC, regular or special reports and information with regard to virtually any business or business-related practices.[75]

It is pointless to list all of the federal programs that collect information from individuals and private sector organizations. As a practical matter, every governmental program, other than strictly administrative units, collects some information from individuals or organizations. The policy issues and trade-offs which these collection activities raise vary depending upon the purpose of the collection effort. There are at least four categories of information that raise significant policy concerns; these categories are: information for criminal law enforcement, regulatory or tax functions, licensing or benefit programs, and research programs.

Criminal Law Enforcement

Criminal law enforcement authorities have wide powers to obtain information. These are somewhat limited by statutory and constitutional restrictions, in particular, the Fourth Amendment's prohibition against unreasonable searches and seizures. In recent years, policy debate has focused on the ability of law enforcement agencies to obtain information. This debate has highlighted the tensions between the need for effective law enforcement and the concern for civil liberties, such as the rights of privacy, free speech, freedom of assembly, and protection against self-incrimination. Many supporters of civil liberties perceive these values to be threatened by police powers and contemporary police practices.

There are several federal statutes or proposed federal bills that limit government collection of personal information for law enforcement purposes. The Right to Financial Privacy Act of 1978,[76] for example, prohibits most federal agencies from obtaining customer bank records without first giving the customer notice of the attempt at access and an opportunity to challenge it in court. Other legislation places limits upon the Federal Government's use of particularly intrusive methods of obtaining personal information, such as wiretapping and eavesdropping.[77] During the 96th Congress, legislation was introduced which would set out comprehensive investigative and information collection practices for FBI investigations.[78]

Law Enforcement Information Systems. It has become exceedingly difficult to calculate the risks and benefits of the traditional methods of collecting law enforcement information because of the rapid development of new technology. Increasingly law enforcement authorities at all levels of government use computer technology.[79] Local law enforcement agencies use data processing for administrative purposes; and there are several computer and telecommunications systems, such as the National Crime Information Center, which give state, local and federal law enforcement personnel immediate access to a wide variety of information. The Department of Justice has also developed separate, automated systems for drug enforcement and organized crime information.

There are a number of problems growing out of widespread use of modern technology. For example, individuals have been injured as a result of inaccurate or antiquated information in law enforcement information systems.[80] There have been continuing policy as well as technical debates about how to minimize this danger. There is also significant debate about the role of the FBI in obtaining and disseminating state and local criminal history information as a part of a federal computerized criminal history system.[81]

Technologies' Effect on Civil Liberties. New computer and communications technologies, such as electronic message systems, computerized telephone message switching systems, electronic funds transfer systems (EFT), and home computer systems, are likely to increase the effectiveness of criminal justice information collection programs. At the same time, the use of these technologies, as well as the use of surveillance devices, pose real threats to individuals' civil liberties. For example, computerized telephone switching equipment can collect information about both completed and attempted telephone calls. And there is considerable fear that electronic funds transfer technology could be used for surveillance. Government agencies with authority to review or monitor EFT systems could construct a comprehensive record of an individual's travels and habits. Similarly, if agencies could monitor or review electronic mail transactions, they might be able to obtain detailed information about individuals' or organizations' patterns of communicating.

The possibility of law enforcement access to electronic information, such as a compilation of home information systems transactions, creates another threat of intrusion on personal privacy, as well as potential diminution of civil liberties. A review of such information could reveal much about an individual's or family's reading and recreational tastes, communications, shopping patterns, hobbies, and other familial interests. By combining information from these various information services, a government agency could create comprehensive investigative dossiers.

It is not clear whether existing laws regarding electronic surveillance would apply to federal agency interception and review of most of the information transmitted over the new technologies, or those that are still in the design phase.[82] In the foreseeable future, new policies, standards, and safeguards may have to be developed which respond more precisely to these technological advances, and to those that are anticipated.

Collection of Information for Regulatory and Tax Functions

Federal regulatory agencies collect substantial amounts of information from private sector organizations. In order to enforce compulsory standards for safety, food and drugs, securities and financial transactions, sales transactions, and competition, agencies collect enormous amounts of information. Much information, such as SEC financial reports, and occupational safety and health reports, is sent to the government automatically every year. In addition, many agencies request voluminous, detailed information as part of specific investigations of potential wrongdoing. Antitrust suits, for example, may often require that the Department of Justice or the FTC obtain literally hundreds of thousands of "pounds" of paper-based information.[83] In certain circumstances the government, although not collecting the information itself, requires businesses to disclose it directly to the general public. The Food and Drug Administration's labeling requirements provide an example.[84]

The Federal Trade Commission's "Line of Business" Reporting Program is among the most controversial federal reporting requirements. Approximately 400 of the nation's largest corporations must submit detailed financial information (production costs, sales figures, inventory, etc.) annually, about each separate line of products that these corporations manufacture or handle. The FTC uses this information in evaluating the competitive health of various industries, in compiling economic reports for public distribution, and in industry-wide antitrust and consumer investigations. Under some circumstances, the FTC may also use the information collected for economic analysis, to pursue specific criminal investigations, or the FTC may share this information with the Justice Department's anti-trust division.

Several years ago, 178 of the corporations covered by "line of business" reporting contested the program's legality. In particular, these corporations argued that the FTC lacked authority to collect this information because it created excessive reporting problems for the corporations, and because the information lacked relevance to FTC activities. The corporations also objected to the FTC's failure to provide the corporations with assurances of confidentiality for the information collected. Although the court rejected the corporations' arguments, the FTC did respond to the corporations' instituted litigation by relaxing its reporting requirements.[85]

Collection of Information to Determine Licensing or Benefit Eligibility

Compared to criminal law enforcement and civil regulatory functions, government licensing and benefit programs are relatively new. However, either licensing or benefit programs also require the government to collect an enormous amount of detailed information about individuals and private organizations, and therefore can raise significant policy concerns.

Much of the information gathered is used to determine if the individual or organization is eligible for the license or benefit. Some information collection is a government response to the public's demand to know whether the administration of the licensing and benefit programs, for which it pays, is impartial and fair. Increasingly, agencies gather information to determine whether there is fraud or abuse in the licenses or benefits which have been granted. The "information costs" of the Federal Government's licensing and benefit programs have escalated so greatly that in recent years the Congress has considered several bills that would require "information impact statements" to accompany all proposed benefit programs.[86]

Collection of Information for Research Purposes

The Federal Government conducts and pays other entities to conduct an enormous amount of research, an effort which requires information collection activities that can raise policy issues concerning the government's purpose in iniating the collection. Virtually every major governmental activity or concern spawns a significant amount of research activity. Some of this research is aimed at developing new products or approaches; some research is intended to compile statistics to guide government planning and programs; and other research is conducted simply for the purpose of increasing the store of human knowledge, without immediate applications. In particular, the Federal Government devotes substantial resources to medical, technical and scientific, demographic and human behavioral research.

Census research is a good example of a major federal research activity that has firmly established policies both requiring federal access to private sector information and limiting subsequent access of persons or organizations to this information, an approach which may create policy discussion.[87] The Census Bureau collects detailed information from individuals and certain types of businesses according to a constitutional mandate. Under the Census Bureau's statute, none of the information is available to others in a form that identifies a specific individual or entity.[88] Furthermore, none of the material can be used by government or private organizations to make decisions directly affecting an individual or organization.[89]

Government Access and Public Policy

What type of "information ethics" should there be to guide the many types of government programs? Some critics contend that because the Federal Government has such a pervasive effect on individuals and organizations and has such a variety and diversity of relationships with individuals and organizations, it must exercise extreme care and restraint in its information practices. The government collects information for many purposes—for law enforcement, for program administration, and for research. A government that assumes many different and conflicting roles must be careful in its information collecting and sharing, or it can do great damage to the traditional relationship that citizens and organizations in a democracy have with the government.

Controversial Information Gathering. Criminal law enforcement is a traditional, widely accepted government function. Revenue and tax collection, despite occasional challenges, is also widely accepted. However, many of the government's regulatory programs enjoy less support. In recent years critics have charged the Federal Government with over-regulation of industry—particularly in safety, health, and economic matters.[90] Policies that foster deregulation are increasingly popular, and "deregulation" and "sunset" bills (laws that automatically terminate government regulatory functions at the expiration of a set period of time) have proliferated in legislation proposed or enacted by Congress.[91]

Law enforcement, taxation, and regulatory functions all pose potential threats both to individual civil liberties and to corporate financial and political interests. Information required for these functions is seldom provided voluntarily. When the information is needed for an investigation, it generally is collected, not from the target of investigation, but from third parties, because the investigation itself is often covert. The threat to the organization or persons being investigated is usually substantial, as evidence gathered could result in imposition of significant penalties—heavy fines, jail sentences or other serious adverse consequences.

Even though effective investigative technique requires an agency to gather much information, certain investigative techniques raise controversial information policy issues.

Agency Investigative Standards. First, there is concern about the standards that agencies should use in deciding whether or not to initiate an investigation. For example, when the Occupational Safety and Health Administration (OSHA) proposed a regulation giving it unfettered access to employee medical records maintained by corporations, consumer groups like the National Commission on the Confidentiality of Health Records and the American Civil Liberties Union objected. Their ground for complaint was that OSHA generally could not collect information from these records without the consent of the employee record subjects.[92] Consequently, OSHA recently published a revised regulation that sets standards to employ in deciding when it can obtain corporate employee medical records.[93] The regulation includes an intra-agency review process to determine if the investigation is proper, the information is necessary for that investigation, and whether protective record management and confidentiality safeguards can be implemented.

Second, there continues to be real controversy over the methods that agencies use to obtain data. The Tax Reform Act of 1976, for instance, places limits on the investigative methods that the IRS and other federal agencies can use to obtain tax-related information.[94] The debate over the utilization of these methods reflects a traditional clash between law enforcement effectiveness and civil liberties safeguards.

Third, it may be so expensive to collect, maintain, and use information generated by some types of investigations that the cost of a protracted legal proceeding exceeds its benefits. This charge has been made, for instance, in regard to the collection and maintenance of information in connection with the Department of Justice's ten-year antitrust suit against International Business Machines (IBM).[95]

Fourth, there is controversy concerning whether certain agencies are the appropriate choices to operate major information collection and statistical programs. For example, corporate plaintiffs in litigation against the FCC have argued that a regulatory agency has too biased and narrow a viewpoint to be given responsibility for compiling and publishing comprehensive research reports. The Congress's recent restructuring of the Law Enforcement Assistance Administration (LEAA) appears to be based at least partly on this notion. The Justice Improvement Act creates a separate information and statistical organization, the Bureau of Justice Statistics, which will operate some statistical reporting programs previously run by the FBI.[96]

Finally, there are issues about the government's handling and use of the personal information that it collects from organizations, which are discussed in the other chapters of this report. As a result of a recent suit in Federal District Court, for example, the court imposed detailed information handling requirements upon the National Institute for Occupational Safety and Health (NIOSH).[97] NIOSH was given permission to obtain personally identifiable employee health records without obtaining employee permission, but only if NIOSH kept the information confidential, removed identifiers at the earliest opportunity, and returned it to the employer's files within one year.

Benefit and Licensing Programs. There is wide agreement that most benefit and licensing programs provide important services to individuals and organizations, and significant protections to society. Thus the benefits served by the information collection in these programs generally outweigh the cost of the collection. In most instances, the information is provided more or less voluntarily by the individual or organization seeking the benefit. Even when applicants for benefits cannot be said to provide the information in a truly voluntary manner, at least they have notice of what is being collected. There are significant concerns about adequately protecting individuals or organizations that supply information to the government in order to get a benefit or license. The few studies conducted on this subject appear to confirm that individuals and organizations provide this information in return for a needed license without any sense of coercion.[98]

The government's benefit and licensing programs raise two important information policy controversies. The first controversy concerns the sort of information that agencies need in order to make entitlement and claim decisions. In a few instances, applicants have refused to provide requested information and have tested the government's collection authority in the courts. Occasionally, the courts have limited the amount or type of information that agencies can collect, indicating that equal protection, privacy and due process interests must be given priority.[99] But, in general, if the information collected is reasonably related to a valid governmental function, the courts have upheld the government's right to obtain it.[100] As a consequence, there have been suggestions that the government should adopt more concise collection standards.[101] Ultimately, decisions about the amount and type of information that a particular agency should collect involve striking a balance between individual privacy or corporate autonomy interests and society's interest in making properly informed entitlement and claim decisions.

The second information policy controversy concerns whether or not an agency should collect information for a licensing or benefit program, and then be able to use the information for a completely unrelated purpose, such as law enforcement. Recently, for example, the Department of Health and Human Resources has shared data which the Social Security Administration obtained for benefit purposes with its Parent Locator Service. This information permitted the Service to locate absent parents whose children were receiving state or federal welfare benefits.[102]

Federally-Conducted Research. There is broad agreement that federally conducted or sponsored research properly requires the government to obtain large amounts of information. However, the specific information collection policies adopted by the government's various research programs are the subject of controversy.

First, there is the issue of whether the information provision for government research programs should be mandatory or voluntary for individuals or organizations. Each decade several persons prefer to go to jail rather than divulge information to the Census Bureau.[103] Recently, the duPont Corporation and the General Motors Corporation have challenged the constitutional and statutory authority of the National Institute of Occupational Safety and Health to force companies to turn over information for research purposes.[104] In general, while the research community is convinced that it must have authority to compel production of information,[105] the objects of this compulsion often would like to decide whether or not to share information, particularly if it is sensitive.

A second and even more significant issue regarding research information is whether it can ever be used to make decisions that directly affect its subjects. Many privacy proposals argue for a strict separation of research records from administrative records.[106] The Bureau of Census has always taken the position that in order to encourage voluntary compliance with information requests, it must assure subjects that this information will never be used to make decisions about them. Even in World War II the Census Bureau, despite intense pressure, refused to give the War Department the names and addresses of Japanese Americans who were residing in the United States.[107] However, in other agencies and other research programs, the distinction between research files and administrative files frequently is not nearly so clear.[108]

Conclusion

Access policies invest potential information recipients (whether government, individuals or private organizations) with the right or ability to obtain information of significant value or interest to them. These policies shift the balance of available information in the direction of increased sharing. This trend inevitably changes the nature of relationships, and ultimately lessens the discretion, autonomy and power enjoyed by the public, private organizations, and the government. When openness and cooperation among sectors are desired goals, access is a useful tool to promote information exchange. But each sector will always have legitimate needs to protect which require limitations on access of others to certain information. Access policies frequently represent a delicate balance among the cooperative instincts and the protective needs of government, individuals, and private sector organizations.

Frequently access to information is achieved at a cost to the provider, either because the information requested is sensitive, expensive to assemble, or of real economic or political value to the holder. With advances in information and communications' technologies providing greater access to all information, there is an urgent need to reassess the conflicting rights of individuals, private organizations, and government in order to begin formulating significant information policy directions that can better balance competing societal goals.

Notes

[1] This concern was voiced by James Madison and was one of the reasons he introduced in the First Congress the provisions which became the Bill of Rights.

[2] See e.g., *Potter v. Castle Construction Co.*, 355 F.2d 212 (5th Cir. 1966).

[3] See *Washington Post*, 6 January 1981, pp. A1, A5.

[4] *Plante v. Gonzalez*, 575 F.2d 1119 (5th Cir. 1978), *cert. denied*, 439 U.S. 1129 (1979).

[5] The Federal Election Campaign laws are codified in numerous titles in the *U.S. Code Annotated* and were enacted in the following public laws: Federal Election Campaign Act of 1971, Public Law No. 92-225, 86 *Statutes at Large* 3 Federal Election Campaign Act Amendments of 1974; Public Law No. 93-443, 88 *Statutes at Large* 1263; Federal Election Campaign Act of 1976, Public Law No. 94-283, 90 *Statutes at Large* 475; Appropriations Amendment of 1977 to the Federal Election Campaign Act of 1971, Public Law No. 95-127, 91 *Statutes at Large* 1110; Social Security Amendments for 1977, Public Law No. 95-216, 91 *Statutes at Large* 1509, 1565.

[6] Another provision of the Federal Election Laws limits the size of a contribution from any one individual with the hope of reducing the risk that a Congressman or Senator will be so indebted to a special interest that he could not effectively serve the public. *Buckley v. Valeo*, 424 U.S. 1 (1976).

[7] 5 *U.S. Code Annotated*, Sections 551-559 (1977 & West Supp. 1980).

[8] *Ibid.*, Section 552 (1977 & West Supp. 1980).

[9] See Wallis E. McNain, ed. *A Summary of Freedom of Information and Privacy Laws of the Fifty States*, (Washington, D.C.: Plus Publications, 1980), p. 5.

[10] See James T. O'Reilly, *Federal Information Disclosure*, 2 vols. (Colorado Springs: Shepard's/McGraw-Hill, 1979). See Vol. I, Section 3.03, "Agency Attitudes and Actions Against Open Information."

[11] Presidential Records Act of 1978, Public Law No. 95-591, 92 *Statutes at Large* 2523, as codified in 44 *U.S. Code Annotated*, Section 2201 (1969 & West Supp. 1980).

[12] 5 *U.S. Code Annotated*, Section 552b(b)(1977).

[13] See Inspector General Act of 1978, Public Law No. 95-452, 92 *Statutes at Large* 1101 (1978), codified at 42 *U.S. Code Annotated*, Section 3522, (1977 & West Supp. 1980).

[14] See H. J. Hilles, "IG Act: A Major Escalation in the War on Fraud," *Legal Times of Washington*, 11 (22 January 1979).

[15] L. Clark, "Why Blowing the Whistle on Corruption Becomes the Sound of Professional Suicide," Government Accountability Program (Washington, D.C.: 1978).

[16] See U.S., Privacy Protection Study Commission, *Personal Privacy in an Information Society: The Report of the Privacy Protection Study Commission on Technology and Privacy* (Washington, D.C.: Government Printing Office, 1977), Appendix 5, "Technology and Privacy," pp. 61-86.

[17] See O'Reilly, *Federal Information Disclosure*, Vol. I, Section 5.05, "Reasonable Standard Charges for Document Search and Duplication."

[18] Of the 35 federal laws located in late 1976 which mentioned computers or automatic data processing, 30 of these laws authorize the use of federal funds for research, acquisition, operation or training related to computer technology. Of course, non-technical, administrative changes can also help make information more available. For one example, see J.C. Goulden's Letter to the Editor, *Finding the Unfindable*, 65 American Bar Association Journal 666 (1979).

[19] Federal Program Information Act, Public Law No. 95-220, 91 *Statutes at Large* 1615, as codified in 31 *U.S. Code Annotated*, Sections 1701-1707 (West Supp. 1980).

[20] O'Reilly, *Federal Information Disclosure*, Vol. I, Section 4.05, "Policy Problems with 'Any Person' Access."

[21] *New York Times Magazine*, 10 June 1979, p. 32; and O'Reilly, *Federal Information Disclosure*, pp. 4-13.

[22] 450 F.2d 670 (D.C. Cir. 1971).

[23] 502 F.2d 133 (3rd Cir. 1974).

[24] See "Washington Focus," *Access Reports/Privacy*, 22 April 1980, H. R. 6316, Intelligence Reform Act of 1980, 96th Cong., 2d sess. (1980).

[25] See Remarks of Associate Attorney General John H. Shenefield at the Federal Bar Association's Sixth Annual Conference on Openness in Government, 27 March 1980, as cited in "Shenefield Proposes Several Changes in FOIA to Make Some Records Exempt," *Access Reports/FOI*, 1 April 1980, pp. 1-4.

[26] 5 *U. S. Code Annotated*, Section 552a(j)(1977).

[27] See *Ray v. Turner*, 468 F. Supp. 730 (D.D.C. 1979); and *Halperin v. National Security Council*, 452 F. Supp. 47 (D.D.C. 1978).

[28] 5 *U. S. Code Annotated*, Section 552(b)(7)(A)(F)(1977).

[29] *Ibid.*, Section 552a(j)(k)(2)(1977).

[30] See Federal Rules of Criminal Procedure, as contained in Rule 6(e) of Title 18 of *U. S. Code Annotated* (1975 & West Supp. 1980).

[31] U.S., Department of Justice, *Privacy and Security of Criminal History Information: Compendium of State Legislation*, published by the Law Enforcement Assistance Administration (LEAA) (1978).

[32] See Remarks of Associate Attorney General Shenefield, note 25 supra..

[33] See U.S., Department of Justice, *Privacy and Security of Criminal History Information: Privacy and the Media*, a comprehensive analysis of media and privacy viewpoints and the law, published by LEAA (1979).

[34] In *Black v. Sheraton Corp. of America*, 371 F. Supp. 97 (D.D.C. 1974), a federal district court refused to permit the FBI to withhold records under the FOIA investigatory records exemption because the intelligence investigation was not related closely enough to an investigation of legitimate law enforcement interest.

[35] 28 *U.S. Code Annotated*, Section 534(a)(2)(1968). See also *Crime Control Act of 1973*, Public Law No. 93-83, 87 *Statutes at Large* 197, as codified in 42 *U. S. Code Annotated*, Section 3701 et seq. (1977 & West Supp. 1980).

[36] *Reporter's Committee for Freedom of the Press and Robert Shackney v. Department of Justice*, Civ. Action No. 79-3308 (D.D.C., December 7, 1979).

[37] *United States v. O'Neill*, 81 F.R.D. 664 (E.D. Pa. 1979).

[38] See U. S., Congress, Senate, Committee on Judiciary, *Hearings Before the Subcommittee on Criminal Laws and Procedures on the Erosion of Law Enforcement Intelligence and Impact on Public Security*, 95th Cong., 1st & 2d sess., 4 pts., 13 July 1977 to 5 May, 1978.

[39] "Convict Tells Senate Unit He Used FOIA to Name Informers and 'Eradicate' Them," *Access Reports*, 5 September 1978, pp. 5-6.

[40] "FBI Director Asks for Exemptions from FOIA for Bureau's Records," *Access Reports/FOI*, 26 June 1979, pp. 3-4; and Statement and Testimony of FBI Director William H. Webster before the Senate Committee on Governmental Affairs, Permanent Subcommittee on Investigations at the hearings held on *Organized Crime and Use of Violence*, Part I, April 28-30 and May 1, 1980. Director Webster's proposals to amend the FOIA and the impact of the FOIA on FBI investigations are located on pp. 17-35 and 235-331.

[41] See *Impact of the Freedom of Information and Privacy Acts on Law Enforcement Agencies* (Washington, D.C.: General Accounting Office, 1978).

[42] *Wolston v. Reader's Digest Ass'n, Inc.*, 443 U.S. 157 (1979). In particular, see Justice Blackmun's concurring opinion on p. 2709-10.

[43] See *Privacy and the Media*.

[44] *Stokes v. Brennan*, 476 F.2d 699 (5th Cir. 1973).

[45] *Sierra Club v. Morton*, 395 F. Supp. 1187 (D.D.C. 1975).

[46] *Philadelphia Newspapers, Inc. v. Department of HUD*, 343 F. Supp. 1176 (E.D. Pa. 1972).

[47] *General Services Administration v. Benson*, 415 F.2d 878 (9th Cir. 1969).

[48] Section 552(b)(9)(B) of the Government in the Sunshine Act, Public Law No. 94-409, 90 *Statutes at Large* 1241, as codified in 5 *U.S. Code Annotated*, Section 552b(c)(9)(B)(1977). For a discussion of this point, see Note, *The Government in the Sunshine Act—An Overview*, 1977 Duke Law Journal 565 (1977).

[49] 5 *U. S. Code Annotated*, Section 552(b)(4)(1977). See *Rural Housing Alliance* v. *United States Dept. of Agriculture*, 498 F.2d 73 (D. C. Cir. 1974).

[50] *National Parks and Conservation Ass'n v. Morton*, 498 F. 2d 765 (D.C. Cir. 1974).

[51] 5 *U. S. Code Annotated*, Section 552(b)(c)(4)(1977).

[52] See e.g., 18 *U. S. Code Annotated*, Section 1905 (1970).

[53] Article I, Section 8, Clauses 1 and 8 of the U. S. Constitution provides: "The Congress shall have Power . . . To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries. . . ."

[54] As noted in a speech before the White House Conference on Libraries and Information Services, November 14 to 19, 1979.

[55] And contrary to that viewpoint, to protect the ability of more than a few to have access to information or other goods and services, our legal system including antitrust, property, copyright and patent law, has evolved to help assure that no company can keep a strong enough monopoly on information to block others from eventually producing a similar product. The legal system also fosters public availability of information through the copyright and patent laws.

[56] See Bar Association of the City of New York, Committee on Federal Legislation, *Amendments to the Freedom of Information Act* (1974), p. 25.

[57] Interstate Land Sales Full Disclosure Act, 15 *U.S. Code Annotated*, Section 1701 et seq. (1974 & West Supp. 1980).

[58] *Ibid.*, Section 77b (1974).

[59] See Title 31 of the *U.S. Code Annotated* (1976 & West Supp. 1980) for much of the nation's codified Food and Drug Law. Labeling and marking requirements are dispersed throughout Title 31. See also, 21 *Code of Federal Regulations*, Part 101 (1980).

[60] 15 *U.S. Code Annotated*, Section 78(k) (1974 & West Supp. 1980).

[61] See The Fair Credit Reporting Act, 15 *U.S. Code Annotated*, Section 1681 (1974); S. 865, Privacy of Medical Records Information Act, 96th Cong., 1st sess., 1979; S. 1928, The Fair Financial Information Practices Act, 95th Cong., 1st sess, 1979; S. 1929, The Fair Insurance Information Practices Act, 96th Cong., 1st sess, 1979; S. 1928, The Family Educational Rights and Privacy Act, 96th Cong., 1st sess, 1979; and the various state employer privacy bills described in McNain Wallis, *Privacy and Freedom of Rulemakers Act, Laws in the Fifty States* (Washington, D.C.: Plus Publications, 1980).

[62] Marc U. Porat, "Communications Policy in An Information Society," as printed in Glen O. Robinson, ed., *Communications for Tomorrow*, (New York: Praeger, 1978), pp. 34-35.

[63] *Symposium on Federal and State Roles in Establishing Standards of Conduct for Corporate Management*, 13 June 1975 to 14 June 1975, 31 *Business Lawyer* 861-1213 (1976). The entire issue of this publication contains a number of articles relating to the roles of federal and state law dealing with standards of conduct for corporate management and an analysis of the tensions and conflicts which exist.

[64] *National Parks and Conservation Association v. Morton*, 498 F.2d (D.C. Cir. 1974).

[65] See *A.O. Smith Corp. v. FTC* 530 F.2d 515 (3rd Cir. 1976).

[66] See 21 *Code of Federal Regulations*, Part I (1980).

[67] See 10 *Code of Federal Regulations*, Part 207 (1980).

[68] The FTC has initiated investigations or proposed rulemaking proceedings aimed at increasing the amount of data available to potential consumers of these products.

[69] See 16 *Code of Federal Regulations*, Part 429 (1980), regulating the cooling-off period for door-to-door sales.

[70] See 42 *Code of Federal Regulations*, Section 442.301-320 (1979).

[71] See U.S., Congress, House, Committee on Science and Technology, *Oversight Hearings Before the Subcommittee on Science, Research and Technology on the Food and Drug Administration's Process for Approving New Drugs*, 96th Cong. 1st sess., 19 and 21 June 1979 and 11 July 1979.

[72] Executive Office of the President, U.S. Office of Management and Budget, *Report to the President and Congress on Paperwork and Redtape: New Perspectives, New Directions* (Washington, D.C.: 1978).

[73] *U.S. Code Annotated*, Constitution, Article II, Section 3 (1968). For a detailed discussion of the legal basis for federal information access power, see Project, *Government Information and the Rights of Citizens*, 73 Michigan Law Review 971-1340 (1975), p. 1277.

[74] University of Michigan Law Review 971-1340, p. 1282.

[75] 15 *U.S. Code Annotated*, Section 46 (1973 & West Supp. 1980).

[76] Title XI of the Financial Institutions Regulatory and Interest Rate Control Act of 1978, Public Law No. 95-630, 92 *Statutes at Large* 3641, 3697, as codified in 12 *U.S. Code Annotated* Section 3401 et seq. (1980), may be cited as the Right to Financial Privacy Act of 1978. Public Law No. 95-630 was approved by President Jimmy Carter on November 10, 1978, and took effect on March 10, 1979. Similar types of restrictions are included in the Tax Reform Act of 1976 and in Section 7609 of the Internal Revenue Code, as codified in 26 *U.S. Code Annotated*, Section 7609 (1967 & West Supp. 1980).

[77] Omnibus Crime Control and Safe Streets Act of 1968, 18 *U.S. Code Annotated*, Section 2510 et seq. (1970 & West Supp. 1980).

[78] H.R. 5030 and S. 2928, a Bill to Create A Charter for the Federal Bureau of Investigation, 96th Congress, 2d session (1980). See also U.S., Congress, Senate, Committee on the Judiciary, *Hearings on FBI Statutory Charter*, 95th Cong., 2d sess., 2 pts., 20 April 1978 to 26 September 1978.

[79] See e.g., V. Countryman, *The Diminishing Right of Privacy: The Personal Dossier and the Computer*, 49 Texas Law Review 837-82 (1971); and B. Schultz, "Urbis Finds Police Solidly Behind Automation," *Computerworld*, 12 February 1979, p. 10.

[80] *Maney v. Ratcliff*, 399 F.Supp. 760 (E.D. Wis. 1975).

[81] See *Essential Elements and Actions for Implementing a Nationwide Criminal History Program*, (Sacramento, Calif.: SEARCH Group, Inc., February, 1979).

[82] 18 *U.S. Code Annotated*, Section 2510(1)(1970). The term, "wire communication" defines communication in such a way that the federal wiretapping prohibitions probably only apply when the intercept is made from a connection "furnished or operated by any person engaged as a common carrier in providing or operating such facilities for the transmission of interstate or foreign communications."

[83] G. T. Benston, *Appraisal of the Costs and Benefits of Government Required Disclosure: SEC and FTC Requirements*, 41 Law and Contemporary Problems 30-62 (1977).

[84] 21 *U.S. Code of Federal Regulations*, Part 101 (1980).

[85] See *A.O. Smith Corp. v. FTC*, note 65 supra.

[86] See e.g. U.S., Congress, Senate, *A Bill to Improve Executive Oversight of the Reporting and Paperwork Requirements of the Federal Departments and Agencies: Hearings on S.3076*, 94th Cong., 2d sess., 1976.

[87] 13 *U.S. Code Annotated*, Section 1 (1956 & West Supp. 1980).

[88] *Ibid.*, Sections 8 and 9.

[89] Section 8(c) states: "In no case shall information furnished under this section be used to the detriment of any respondent or other person to whom such information relates . . . ."

[90] See e.g., *Deregulation and the Antitrust Laws—What's It All About?* 45 Antitrust Law Journal, 194-289 (1976).

[91] J. H. Shenefield, *Regulation and Deregulation—Where Do We Stand?* 45 Antitrust Law Journal, 244-89, (1976).

[92] 43 *Federal Register* 31,371 (1978).

[93] U.S., Department of Labor, Occupational Safety and Health Administration (OSHA), *Administrative Guidelines on OSHA Access to Employee Exposure and Medical Records*, Published in draft form, 31 March 1979.

[94] 26 *U.S. Code Annotated*, Section 7609 (1967 & West Supp. 1980).

[95] G. Hammond, *IBM Monopoly Case*, 1979 New Zealand Law Journal 316-21 (1979).

[96] The Justice Improvement Act, Public Law No. 96-157, 93 *Statutes at Large* 1167, as codified in 42 *U.S. Code Annotated*, Section 3701 et seq. (1977 & West Supp. 1980).

[97] *E. I. duPont de Nemours & Co. v. Finklea*, 442 F.Supp. 821 (S.D. W. Va. 1977), and see the unpublished order of the court.

[98] E. Singer, "Informed Consent: Consequences for Response Rate and Response Quality in Social Surveys," *American Sociological Review* 43 (April 1978): 144-62.

[99] Project, *Government Information and the Rights of Citizens*, 73 Michigan Law Review, 971-1340 (1975).

[100] *Ibid.*

[101] *Government Investigations of the Exercise of First Amendment Rights: Citizen Rights and Remedies*, 60 Minnesota Law Review 1257-88 (1976).

[102] See 44 *Federal Register* 16,561 (1976).

[103] 13 *U.S. Code Annotated*, Section 221 (1956 & West Supp. 1980). See e.g., *United States v. Little*, 321 F.Supp. 388 (D. Del. 1971) and *United States v. Rickenbacker*, 309 F.2d 462 (2nd Cir. 1962) cert denied, 371 U.S. 962 (1963).

[104] *E. I. duPont de Nemours & Co. v. Finklea*, note 97 supra., and *General Motors v. Finklea*, No. C-3-77-339 (S.D. Ohio, October 10, 1978).

[105] "Non-therapeutic Medical Research Involving Human Subjects," 24 *Syracuse Law Review*, 1067-99, (1973).

[106] *Personal Privacy in an Information Society*, Chapter 15, "The Relationship Between Citizens and Government: The Citizen as Participant in Research and Statistical Studies."

[107] 13 *U.S. Code Annotated*, Section 9(a)(2) (1956 & West Supp. 1980) flatly forbids any employee of the Census Department from making "any publication whereby the data furnished by any particular establishment or individual under this title can be identified."

[108] See Report of Privacy Protection Study Commission, *Personal Privacy in an Information Society*, p. 572.

Chapter III

Information Privacy

By Robert R. Belair

Information privacy policies place limitations and safeguards on the handling of personal information. Typically these safeguards include restrictions on the collection of information, standards for its management and use, guarantees for subject access to information and other participation rights, as well as restrictions on disclosure.

Chapter Three identifies information privacy policies and discusses the interests and goals which these serve. It also examines the effect of privacy policies upon other information policies, including dissemination and access policies.

Information privacy is defined, in an operational sense, as the collection, maintenance, use and dissemination of information about private individuals. It is important to distinguish information privacy from what might be called "behavioral privacy." Behavioral privacy is associated with the right of individuals to engage in certain kinds of activities free from surveillance, intrusion or regulation. The Supreme Court, for example, has used the term "right of privacy" to refer to an individual's right to use birth control devices,[1] to view pornography in his own home,[2] and to have an abortion.[3] Recently the Supreme Court stated in ***Whalen v. Roe***[4] that information privacy and behavioral privacy represent two separate, albeit related, types of rights. This chapter focuses exclusively on information privacy.

Interests at Stake

There is wide agreement in this country that the handling of personal information should be subject to certain safeguards, which are found in the Constitution, in federal and state legislation, and in the common law.

Information privacy safeguards are important because the manner in which personal information is handled has an effect upon two fundamental societal interests. First, information privacy protections enhance the proper functioning of a democratic society, because they ensure fair and equitable procedures for decision-making about individuals.[5] The use of information about a person has a critical impact upon his economic, social, and political prospects. Governmental and non-governmental institutions use personal data to make decisions that affect the quality of people's lives. Consequently, individuals have a strong interest in ensuring that the information about them is accurate and that it is used in a consistent and fair manner.

Second, in addition to the concerns about how personal information is used, psychologists and sociologists point out that the mere act of obtaining or disclosing some types of personal information can have a disturbing effect on the individual about whom the information is disclosed. The extent or quality of the injury naturally varies depending upon the individual, the information disclosed, the circumstances of the disclosure, and the party receiving the information. Nevertheless, there is substantial evidence that the mere act of obtaining or disclosing information, regardless of its subsequent use, can have an adverse impact upon an individual's sense of trust, security, and well-being. Protection of the individual from disclosure of information is an aspect of privacy often characterized as an attempt to preserve personal freedom and autonomy, and as such, is similar to the desire to avoid surveillance or control, a goal upon which behavioral privacy is based.[6]

Privacy Policies Guard Personal Interests. Information privacy safeguards also directly affect a number of specific personal interests. For example, without these safeguards, an individual might have no idea whatsoever that government and private sector organizations have obtained information about him. Furthermore, the individual would be unable to inspect his record or to correct or rebut inaccurate, incomplete, or out-of-date information in it, even if he somehow discovers that the record exists. Nor would an individual have any knowledge of the recordkeeper's plans for using or disclosing information about him.

The views and conclusions contained in this chapter reflect those of the author, and should not be interpreted as necessarily representing the official policies or recommendations of the National Telecommunications and Information Administration, the U.S. Department of Commerce, or the U.S. Government.

Finally, quite apart from the record subject's knowledge of or involvement in the record-keeping process, information privacy safeguards often place substantive limits upon a record-keeper's use and disclosure of personal information. Typically, these limits on the record-keeper attempt to ensure that information is used in a fair and appropriate manner, and disclosed only with subject consent or for purposes that relate to and are indicated by the record-keeper's relationship to the record subject.

The first two chapters of this report discuss dissemination and access policies and the interests which these serve. To the extent that information privacy policies restrict the availability of personal information, they appear to run counter to the goals of dissemination and access policies. However, there are strong arguments that information privacy policies, in fact, serve similar democratic goals.

Development of Comprehensive Information Privacy Policies

The Development of Privacy as a Political Issue

Notions of privacy and restraint upon the use of personal information have always been a part of American law. However, most scholars agree that in the 1960's privacy began to become an issue of political importance. By 1965 the perceived threat of privacy invasions and the technological instruments of that threat—sophisticated surveillance devices, lie detectors, and computers—were topics of both popular and scholarly fascination.[7]

Over the past decade there has been an increasing awareness that the misuse of recorded information could be the source of harm or unfairness to individuals. More recently, there has been a realization that even the well-intentioned use of recorded information could have undesirable consequences. Furthermore, while recorded information increasingly mediates relationships between people and organizations, individuals have less and less control over records about themselves. The explosion of information technology, particularly in computers and telecommunications, has contributed to the general concern. Electronic systems not only magnify the problems of manual systems, but also introduce some new problems.

Societal Changes. Several developments led to the emergence of privacy as a national issue. First, by the mid-1960's the development of large and important governmental and private institutions was increasingly apparent. The operation of large and powerful industries or institutions requires that they maintain and exchange a large amount of personal information. For example, because the Federal Government distributes billions of dollars of personal benefits and confers status, such as licenses and certifications, its decisions and the related record-keeping have a critical impact on each member of the public.[8] For the same reasons, on a slightly lesser scale, private sector record-keeping also has an important effect upon individuals.

Most Americans now do at least some of their buying on credit, and most have some form of life, health, property, or liability insurance. Institutionalized medical care is almost universally available. Government social services programs now reach deep into the population, as do government licensing of occupations and professions, taxation of individuals, and regulation of business and labor union affairs. Today, the government regulates and supports economic and social life through some of the nation's largest bureaucratic organizations. Many of the programs deal directly with individuals.

A significant consequence of this marked change in the variety and concentration of institutional relationships with individuals is that record-keeping about individuals now affects almost everyone. Evaluations of credit are based on recorded information in the files of one or more organizations. The same is generally true for determinations about medical care, employment, education, and social services. Moreover, in this age of giant organizations, the individual does not possess the bargaining power in the marketplace to insist that organizations protect the use and disclosure of his records. In short, we live inescapably in an "information society," and few of us have the option of avoiding relationships with record-keeping organizations. To do so is to forego not only credit, but also insurance, employment, medical care, education, and many government services to individuals.

Legal Privacy Protections are Outdated. The growth of institutional record-keeping has outflanked traditional legal protections. For example, the Fourth Amendment's protection against unreasonable searches and seizures and the Fifth Amendment's guarantees of due process give individuals a substantial arsenal of weapons to protect information—as long as it is in their own possession. However, when their personal information is held by other parties, these traditional safeguards are largely inapplicable.[9] The realization that these safeguards are limited has fueled the drive to obtain additional privacy protections.

Also, in the mid 1960's and early 1970's, the nation experienced a period characterized by what has been called "confrontation politics." This sort of polarized political climate encourages institutions to adopt detailed rules for the distribution of resources and benefits, as well as for the imposition of penalties. This kind of precise, accountable decision-making inevitably requires institutions to compile detailed personal records covering the background, performance, and status of affected individuals. Examples of reform and protective legislation that involve increased collection and maintenance of personal information are legion.[10] For instance, the Economic Opportunity Act of 1964—though clearly serving a laudable purpose—imposed new and detailed personal record-keeping requirements.[11]

With the increase in record-keeping activity and new calls for accountability came demands for public oversight and subject participation in the record-keeping process itself. As one scholar put it, the nation came to the realization that personal record-keeping was too important to leave to the record-keepers.[12]

Technological Changes Threaten Personal Privacy. Finally, the continuing development of sophisticated computer, telecommunications and surveillance technologies undoubtedly contributed to the emergence of the privacy issue. By 1965, three separate technologies had come of age.

By the mid 1960's, the public perceived advances in computer and telecommunications technologies as the principal threat to personal privacy.[13] The computer's ability to collate, store, and retrieve vast amounts of information in an efficient and cost effective manner meant that dossier building and record surveillance could be done on a scale that previously was impracticable, if not impossible. In 1966, this concern led to the first of many congressional hearings on computers and the invasion of privacy.[14] Numerous books published during this period focused upon computer technology's threat to privacy.[15]

Because the problems of technology and privacy were perceived to be critical, the Privacy Protection Study Commission published a separate report on advances in computer and telecommunications technologies.[16] The report expressed the commissioners' concern that because of the advances in information and telecommunications technology, it was becoming far easier to accede to access and dissemination requests than to deny them.[17] The same report describes the revolutionary advances in computing time and storage capacity made in the last 20 years. At the same time, advances in telecommunications technology have made it possible for computers to transmit and exchange far more data in a much shorter time.[18] In addition, these developments have been accompanied by substantial decreases in the computing and telecommunications aspects of the costs of maintaining, using and transmitting information.

The ease with which automated information can be handled tends to eliminate the protections for the privacy of personal information which existed when the costs in time, processing, and retrieval of recorded information were much higher. Furthermore, the growing availability and decreasing cost of computer and telecommunications technologies provide both the impetus and the means to establish new record-keeping functions. The pace of technological development will only accelerate this trend in the future.

Good and Bad Results of Changes. Of course, advances in computers and telecommunications have produced both positive and negative results. In 1972 the National Academy of Sciences published the report of its three-year study of the social and political effects of computerization of personal information.[19] The study marshaled empirical information which indicated that although automation brought new and difficult challenges, the computer was not entirely or even principally to blame for the privacy "crisis." The study demonstrated that the automation of personal information did not need to interfere with the continued enjoyment of individual rights. It recommended the adoption of privacy policies that "regulated" the handling of personal data, as opposed to policies prohibiting the use of data or its acquisition and maintenance in automated systems.

Today there is a growing awareness that the maintenance of personal data in automated systems makes it easier to use audit logs that keep track of system transactions, to provide subjects with access rights, and in some respects to implement adequate security procedures.[20]

In addition to automated data processing, sophisticated electronic listening and watching devices became available in the 1960's, making it possible to monitor individual activities to a previously unknown degree.[21] For example, it is now possible to monitor most long-distance telephone and some in-person communications without physical implacement of a tap or bug.[22] Developments in visual surveillance technology now make it possible to magnify images dramatically, to see targets in almost total darkness, and even to pierce curtains and certain types of opaque obstructions.[23]

Debate over Polygraph Tests. Finally, the debate over the use of lie detectors, personality tests and other truth and character testing devices heated up during the 1960's.[24] Many states banned the use of the polygraph for employment purposes, as did the Federal Government, except for employment in certain types of sensitive positions. Other states took a less protective tack by licensing polygraph operators.[25] The traditional polygraph device measures various physiological responses to stress. In order for the test to work, the subject must have physical contact with the machine. However, more modern truth detection devices purport to measure physiological changes in a manner that does not require the device to be in physical contact with the subject. These types of devices, which supposedly measure eye pupil contractions[26] or stress in the voice[27] can be used covertly, thus raising especially grave privacy problems.

Comprehensive Privacy Policies

The 1973 Report of the Secretary of the Department of Health, Education and Welfare's Advisory Committee on Automated Personal Data Systems, recommending the enactment of a federal "Code of Fair Information Practice," called attention to information privacy problems.[28] The code embodies five information principles designed to protect individuals from misuse of personal information maintained in sophisticated, and generally automated, record-keeping systems.

- There must be no personal data record-keeping systems whose existence is secret.
- There must be a way for an individual to find out what information about him is in a record and how it is used.
- There must be a way for an individual to prevent personal information obtained for one purpose from being used or made available for other purposes without his consent.

- There must be a way for an individual to correct or amend a record of identifiable information about him.
- Any organization creating, maintaining, using or disseminating records of identifiable personal data must assure its reliability for the intended use, and must take precautions to prevent its misuse.

Recent Legislation on Personal Information

By the mid-1970's, the stage was set for substantial statutory reform of standards for the handling of personal information about individuals.

As early as 1970, the Congress had applied relatively modest privacy protections to the information practices of consumer-reporting agencies (firms that supply credit history and individual background information to credit grantors, insurers, employers and others). The intent of the Fair Credit Reporting Act[29] is to enable a consumer to learn the "nature and substance" of all information pertaining to him in the records of a consumer-reporting agency, and to learn when a consumer report adversely affects a decision about him. The consumer may also demand a reinvestigation of the material, and deletion or amendment of inaccurate or unverifiable information. The Act places some loose disclosure limitations on a consumer-reporting agency. There is provision for civil damages and criminal penalties. The FTC has primary enforcement authority under this Act, along with federal regulators of financial institutions.

Beginning in 1974, the Congress enacted several significant pieces of information privacy legislation.[30] The two most important are the Family Educational Rights and Privacy Act of 1974 (Buckley Admendment)[31] and the Privacy Act of 1974.[32]

Family Educational Rights and Privacy Act of 1974. The Buckley Amendment provides students and their parents with rights of access and correction for most records held by most educational institutions, and places limits on the non-consensual disclosure of information in these records.[33] Because of the absence of meaningful penalties or regulatory oversight, it is not clear whether the Buckley Amendment has had much effect upon student record-keeping.[34] Furthermore, by granting students access to records, including personal references, the statute may either lower the reliability of references or result in a less formal, "undocumented" process of obtaining references.[35] Because of the risk of lessening the credibility of their references, many students choose to waive their rights of access to letters of recommendation.

Privacy Act of 1974. The Privacy Act of 1974 is landmark legislation.[36] So far, twelve states have enacted similar laws governing state and local agency record-keeping.[37]

The Privacy Act prohibits federal agencies from disclosing personal information unless the disclosure has been approved by the subject or it comes within one of the Act's eleven exceptions to disclosure. In addition, the Act permits agencies to disclose information only if it is accurate, complete, timely, and relevant; it permits record subjects to see, copy and correct most information in their files; it places certain limits on federal collection of personal information; it requires federal agencies to meet certain information management standards; and it requires federal agencies to publish descriptions of record systems containing personal information.[38]

Philosophical Conflict: Dissemination versus Privacy. Initially there was a great deal of confusion regarding the relationship of the Freedom of Information Act (FOIA) and the Privacy Act.[39] Because the FOIA makes government-held information public and the Privacy Act makes government-held personal information private, the statutes may superficially appear to be in conflict. Undeniably, the statutes present a policy tension between dissemination and secrecy.

However, in actual practice, the FOIA and the Privacy Act seem to work together reasonably well. The Privacy Act permits agencies to disclose personal information without obtaining subject consent if the FOIA requires disclosure of the information. The FOIA requires agencies to disclose all written information unless the disclosure would come within one of its nine disclosure exemptions, one of which covers information "the disclosure of which would constitute a clearly unwarranted invasion of privacy."[40]

Interpretation of "Clearly Unwarranted." Thus, whenever a federal agency is considering disclosing personal information, its first question is whether such disclosure would result in a "clearly unwarranted" invasion of the subject's privacy. If the answer is affirmative, then the disclosure cannot be made unless done pursuant to one of the Privacy Act's exemptions. If the answer is negative, the Privacy Act considerations are irrelevant and the disclosure must be made.

The FOIA's "clearly unwarranted invasion of privacy" language, which offers a possible exemption to agencies from their mandatory requirement to disclose all written information, has been interpreted by the courts to mean: (1) that the bias should be in favor of disclosure; and (2) that the agency or the court should balance the public's interest in access against the nature and degree of the subject's privacy interests, on a case-by-case basis.[41] As a result, a substantial amount of personal information maintained in federal files is made public. In addition, record subjects and federal agencies have a difficult time predicting the outcome of disclosure decisions, because ultimately each can be made on the basis of a subjective, detailed weighing of the equities in that particular case.

Criticism of the Privacy Act of 1974. Apart from its relationship with the FOIA, the Privacy Act has received substantial criticism.[42] The statute's alleged deficiencies as a privacy protection mechanism include its very broad disclosure exemptions which permit agencies to continue to make numerous disclosures without obtaining subject consent; the Act's dependence on vaguely worded standards such as "accuracy," "timeliness" and "relevance;" the apathetic response of most record subjects; and the lack of effective regulation or oversight.[43]

Although the Privacy Act has been criticized for failing to establish adequate restraints on federal handling of personal information, it was the first statute to embody a fair information practice approach to information privacy.[44] At the same time, the nation's experience with the Privacy Act has raised many difficult policy issues. Should privacy legislation take an omnibus approach covering all personal record-keeping situations, or a piecemeal approach that tailors safeguards to specific types of personal records or record-keeping relationships? Is it realistic for privacy policies to rely on subject participation safeguards? Do restraints on collection of personal information create unacceptable damage to interests that compete with privacy? Can disclosure policies be designed that effectively prohibit the dissemination of most personal information while permitting necessary disclosures? The application of privacy policies to private sector record-keepers and the refining of existing public sector privacy policies will require answers to these questions.

Privacy Protection Study Commission's Report

The 1977 Report of the Privacy Protection Study Commission[45] attempts to answer some of the difficult policy issues mentioned. In particular, the report creates policy guidelines that were not formulated in the Privacy Act, and establishes:

(1) the standards for handling personal information maintained in the private sector, and

(2) the standards for government access to personal information maintained by private sector organizations.

The Privacy Commission Report is significant in a number of respects. First, it assumes that threatening or offensive practices can be regulated effectively. Rather than recommend the abolition or prohibition of a record-keeping practice, the report stresses minimizing intrusion and maximizing fairness and confidentiality in various record-keeping relationships.

Second, the Commission's approach to reform of private sector personal record-keeping differentiates between the regulation of record-keeping in the public and private sectors. For example, the recommendations seldom propose restrictions on the private sector's collection procedures or on the type of information collected. In contrast, privacy protection principles—both constitutional and legislative—that apply to governmental record-keepers usually rely heavily upon procedural collection restrictions. It is reasonable to assume that the report does not recommend similar restrictions on private sector collection, because it believes governmental intrusion and surveillance to be a more serious threat to liberty and individuality.

The Privacy Commission's recommendations for private sector record-keepers also depart from statutes regulating governmental record-keepers in that they contain very few record management standards. In the public sector, these standards impose direct and often detailed requirements upon record-keepers. This sort of interference in the internal management of an organization is perhaps more easily justified for the public than for the private sector.

Record Subjects' Participation Rights. The recommendations stress participation rights for record subjects. These rights are intended to permit record subjects to monitor a record-keeper's information practices. It is likely that record-keeping relationships in the private sector are more amenable to effective subject participation than in the public sector. A private sector record-keeping relationship is more likely to be volitional and more likely to involve relatively equal bargaining positions than a public sector relationship. Therefore, the emphasis on subject participation as a primary privacy protection strategy for private sector relationships may well be an accurate reflection of a basic distinction between public and private personal record-keeping.

In certain cases the Privacy Commission accepts the principles articulated in the Privacy Act, but avoids application of its requirements because of decisions regarding the applicability and appropriateness of these requirements in areas beyond the jurisdiction of the federal sector. For example, the Commission determined that the Privacy Act's principle that there should be no secret record systems cannot be applied, not because it is not a desirable objective, but rather because there is no realistic mechanism for implementation. (In the federal sector, notices describing agency record systems are published in the *Federal Register*.) Thus, while the fundamental objectives remain the same, the basic elements of a privacy policy in the non-federal sector would differ from the Privacy Act principles.

Finally, the Privacy Commission's Report is significant because it abandons the omnibus approach to information legislation, and instead proposes separate, though often overlapping, reforms for different types of record-keeping relationships. Thus, it offers recommendations for insurance, financial, medical, education, employment, credit, and research and statistical record-keeping.

The Need for Record-Keeping Policies. The Commission concluded that since so much of an individual's life is now shaped by his relationships with organizations, his interest in the records organizations keep about him is obvious and compelling. It identified five systemic features of personal information in America today on which public policy needs to focus:

(1) While an organization makes and keeps records about individuals to facilitate relationships with them, it also makes and keeps records for other purposes, such as documenting the record-keeping organization's own actions, thus making it possible for other organizations—government agencies, for example—to monitor the actions of individuals.

(2) There is an accelerating trend, most obvious in the credit and financial areas, toward the accumulation in records of more and more personal details about an individual.

(3) More and more records about an individual are collected, maintained and disclosed by organizations with which the individual has no direct relationship, but whose records help to shape his life.

(4) Most record-keeping organizations consult the records of other organizations to verify the information they obtain from an individual, and thus pay as much or more attention to what other organizations report about the individual than they pay to what he reports about himself.

(5) Neither law nor technology now gives an individual the tools he needs to protect his legitimate interests in the records organizations keep about him.

The significance of this view of the problem is that it focuses on systemic characteristics of our society rather than on specific record-keeping abuses. Thus, the Privacy Commission and other experts warn that we are faced with a slow but steady erosion of privacy which, if left unreversed, will take us in another generation to a position where the extent of our human rights and the vitality of our democracy will be jeopardized.

President's Privacy Legislation

In 1979 the Administration sent several landmark privacy bills to the Congress. These bills included a comprehensive medical records privacy bill for private sector institutional health care providers;[46] a bill setting out standards for researcher access to, and use and disclosure of personal information;[47] a bill that would restrict government use of search warrants to obtain personal information about targets of investigations from newspapers and related organizations which are not themselves targets of the investigation;[48] a bill to provide safeguards for electronic funds transfers;[49] and an omnibus bill entitled the "Fair Financial Information Practices Act" that would reform personal record-keeping in five major areas: consumer reporting agencies, credit grantors, credit and check authorization services, depository institutions, and insurance companies.[50]

For the most part this proposed legislation followed and implemented the Privacy Commission's recommendations. Its announced purpose was to ensure that fair information practices are used, and to place procedural limitations on government access.[51] The Administration believed that the legislation would halt the erosion of personal privacy, balance privacy protection with competing interests, and avoid heavy compliance costs.[52]

Subject Participation to Protect Privacy. The legislation relied very heavily on subject participation rights to protect subject privacy interests. Many of the bills required that record-keepers provide subjects with a detailed explanation of their record-keeping practices; provide subjects with access and correction rights; provide subjects with notice and an explanation when information about them is used to make adverse decisions; and provide subjects with specific notice of government attempts to obtain personal information. Although many of the bills also contained confidentiality provisions, these provisions, with few exceptions, did not change the existing pattern of non-consensual information flow within the affected industries.

The legislation was significant for several reasons. First, it represented the first comprehensive, and easily the most serious, attempt by an American President to address private sector information privacy issues. Second, the legislation contained an implicit judgment that the use of subject participation rights with procedural safeguards against government access, involving de-emphasis on other types of safeguards, is the proper way to reform private sector personal information practices. Third, the bills were based on the idea that regulatory oversight is not necessary. Finally, the legislation accepted the Privacy Commission's view that privacy standards should be tailored discreetly to the needs and problems of separate industries or record-keeping relationships.

Information Privacy Issues

Any attempt to fashion information privacy protections must balance the goals of privacy protection with other significant, competing public interests. For privacy protections to operate effectively, there must be general awareness that business, government and other institutions have legitimate needs to collect, use and disclose information about individuals. If the concern for privacy was taken as an absolute, the ability of government (particularly in the area of law enforcement) to perform its required duties could be severely constrained.

Other less obvious values may also conflict with the objectives of preserving personal privacy. Our society continues to affirm its concern for the free flow of information, as seen in the First Amendment protections of freedom of speech and the press, and the recent drives for open government. To the extent that privacy protections involve restraints in the flow of information about individuals, the conflicting values of privacy and free speech need careful balancing. Of equal concern is the intrusion of government into private sector record-keeping to preserve the interests of individuals, particularly when the government itself is a substantial intruder into individuals' rights of privacy. The choices in the area of privacy are generally not between "good" and "evil," but between legitimate, competing, public interests.

This chapter reviews three basic types of policies to protect information privacy: (1) policies that affect collection of personal information by record-keepers; (2) policies that provide record subjects with rights to monitor and participate in the record-keeping process; and (3) policies that affect the confidentiality or restrict the availability of personal information.[53]

Collection Policies

Policies limiting the collection of personal information by record-keepers and in particular, public record-keepers, are not uncommon in American law. The Fourth and Fifth Amendments and to a lesser extent, the First Amendment, contain such limitations, as do some common law and statutory standards.

A representative listing of current or proposed collection policies includes both standards that stipulate the methods that can be used to collect data, and standards that stipulate the types of data that can be collected. Those policies include the following standards:

- Information should be collected from the subject individual to the greatest extent possible.
- There should be no governmental collection of personal information from third party record-keepers without first obtaining subject consent, or without the use of formal process, notice to the subject, and the opportunity for court review.
- Surreptitious electronic surveillance devices should not be used.
- Truth and character detection devices should not be used (or should not be used without first obtaining the subject's consent).
- Pretext interviews should not be used.
- Only personal information relevant to a legitimate organizational purpose should be collected.
- Arrest record information should not be collected by private sector organizations.
- And the government should not collect information about individuals' exercise of their First Amendment rights.

Constitutional Doctrines on Privacy Issues. The Constitution does not use the term privacy, and information privacy was an unknown concept in 1776. To the extent that the Bill of Rights deals with privacy issues, the focus of concern is to protect individuals from certain kinds of oppressive or intrusive governmental behavior by limiting the collection and use of personal information.

For example, the First Amendment restrains government surveillance, if it threatens the individual's ability to associate with others or to send and receive information freely. Thus, the First Amendment prohibits the government from identifying individuals who participate in political organizations,[54] and from monitoring what individuals send and receive through the mails.[55] However, when the government merely watches an individual or collects information about him, First Amendment issues may be raised only if there is evidence of personal harm to the person under surveillance. In such cases, the courts have not been inclined to provide relief for the individual in question.[56]

The courts, however, have used the Fourth Amendment's protections against unreasonable searches as the basis for the opinion that certain personal behavior and information are immune from unauthorized government surveillance and other types of searches.[57]

The Fifth Amendment's guarantee of freedom from compelled self-incrimination also places restraints on government collection of personal information—albeit in the narrow context of criminal investigations.[58]

The Sixth Amendment's guarantees of counsel and the right to confront accusers also affects government collection of personal information. For example, the courts have used the Sixth Amendment to place safeguards on government use of pre-trial lineups.[59]

The Ninth Amendment's Reserved Powers Clause, which provides that rights not expressly given to the government are retained by the people, has also been cited as a basis for a Constitutional limitation on the government's collection of personal information.[60]

Statutes and Regulations. A few federal statutes limit government and/or private collection of personal information. Usually these statutes proscribe certain intrusive or offensive methods of collection. For example, the Omnibus Crime Control and Safe Streets Act of 1968 prohibits private individuals from using devices whose primary use is to intercept conversations surreptitiously, and thus accomplishes an almost total ban on private wiretapping and eavesdropping.[61] Regulations that restrict the collection and use of information generated by the polygraph and other truth detection devices are also directed at offensive methods of collection. The Fair Debt Collection Practices Act[62] effectively prohibits consumer debt collectors from using pretext interviewing techniques (misrepresentations of identity or purpose) to obtain information.

Recently the Congress placed substantial limitations on the methods that federal agencies can use to obtain customer records held by financial institutions. Based upon recommendations in the Privacy Commission report, the Congress enacted the Right to Financial Privacy Act of 1978.[63] That statute requires federal agencies to use a subpoena or another formal written process to obtain customer bank records. Furthermore, unless a specific exception applies, the bank customer must receive a copy of the subpoena at the same time that it is served upon the financial institution. The Act also gives the customer an opportunity to go to court to block the government's acquisition of his bank records.

The Right to Financial Privacy Act is significant because it indicates that the Congress views the government's handling of personal information as a major privacy problem. Also, it is the Congress's first attempt to limit collection of a particular type of sensitive personal information maintained by private sector institutions.

The Privacy Act limits government access to certain personal information generated by government programs. Section Seven prohibits federal and state agencies, with certain exceptions, from requiring individuals to disclose their social security numbers for use by the agency as a personal identifier.[64] The social security number—

like the computer—has become for some a metaphor for the individual's sense of depersonalization and loss of control. Also, the Privacy Act requires each federal agency to limit its collection (and its maintenance, use, and dissemination) of information about individuals to that which is "relevant and necessary" for a lawful agency purpose. It also prohibits federal agencies, with certain exceptions, from collecting information about individuals' exercise of their First Amendment rights.[65]

Benefits of Collection Policies. Policies limiting collection offer substantial privacy protection benefits. Policies that affect collection methods, for example, proscribe or modify collection practices such as wiretapping and eavesdropping that are thought to unreasonably intrude upon and violate personal property.

Standards that proscribe or limit the type of information collected greatly help to ensure that record-keepers will not obtain information that is of little utility, or that is so unreliable or so offensive that its collection runs the risk of doing unfair or unacceptable damage to record subjects. Many believe that arrest record information, for example, falls into this category.

Drawbacks of Limited Collection Methods. There is wide agreement that properly drafted procedural limitation collected greatly help to ensure that record-keepers contrast, there is a great deal more concern about substantive limitations on the types of information that can be collected.

First, policies which restrain or prohibit the collection of personal information force record-keeping institutions to assume greater risks. For example, if law enforcement agencies cannot get personal information, their ability to detect and apprehend law breakers decreases. Similarly, if employers cannot collect arrest records, they may place inappropriate individuals in sensitive positions. Recently, for example, a jury awarded $800,000 to an Avis Rent-a-Car female reservations clerk who was raped by a male employee. The male employee had a history of arrests and convictions for violent crimes, including a previous arrest for rape. Avis failed to investigate the employee's criminal history, and the reservations clerk sued, claiming that Avis had breached its duty in hiring such a person.[66]

Second, these standards effectively substitute a lawmaker's policy judgment for the record-keeper's judgment. For example, a firm that did not hire individuals with arrest records because it considered this to be too risky would have to change its hiring criteria if there were a law prohibiting it from obtaining applicants' arrest records. The Equal Credit Opportunity Act (ECOA), for example, comes close to prohibiting credit grantors from using sex, marital status, race, religion or ethnic background as a basis for making credit decisions,[67] by prohibiting the use of this type of data, although it does not actually prohibit its collection.

Third, collection safeguards may have the ironic and unintended effect of increasing individuals' reporting burdens. For example, some information privacy schemes, including the Privacy Act, provide that personal information should be obtained, whenever possible, directly from the record subject. This provision has been criticized on the grounds that it restrains the sharing of personal data among federal agencies.

Pro's and Con's of Collection Sharing. The extent to which federal information collection activities create a reporting burden for the public has been a subject of concern within the government.[68] As a result, the Federal Government has recently supported efforts to minimize these burdens and to maximize intra-governmental exchange of some types of personal information.[69] Such sharing may not only minimize collection costs and burdens, but it also contributes to agency law enforcement and fraud control efforts. However, this type of sharing threatens privacy interests by permitting the non-consensual sharing of subject information without notice to the subject. For example, HEW has used computer matching programs to compare federal employee personnel records with municipal welfare records and with federally-guaranteed student loan default records, in order to identify federal employees who may be defrauding government-sponsored benefit programs.[70]

As the 1970's drew to a close, members of Congress and other policy makers seemed increasingly willing to impose procedural limitations on collection methods in order to protect privacy. The Right to Financial Privacy Act of 1978, for example, relies almost exclusively on procedural limitations on collection methods. Legislation in Congress that would comprehensively regulate the handling of medical records is another example. It includes Financial Privacy Act type limitations on government collection of medical record information.

In contrast, policy makers seem less disposed to impose substantive limitations on personal data collection. There appears to be an increasing recognition that provisions which prohibit the collection of certain types of subject matter may intrude too deeply into the areas of information which are the prerogatives of institutional decision-makers.

Subject Participation Policies

Subject participation refers to the record subject's right to monitor and participate in the record-keeping process. These rights are the cornerstone of modern information privacy protection schemes. Although the specific subject participation rights in any given privacy policy or statute vary, the significant components of this concept include:

- a right to authorize collection of personal data;
- an explanation of the record-keeper's information system and practices including:
  —the organization and content of the data base;
  —the potential uses of the data;
  —the potential non-consensual disclosures of the data;

- a subject's right to see and copy his file;
- a subject's right to amend or rebut information in his file;
- a subject's right to notice of certain kinds of non-consensual disclosures;
- a subject's right to notice of certain kinds of adverse decisions;
- a subject's right to see a log that describes non-consensual third party disclosures.

Constitutional and Statutory law. Most of these subject participation rights are included in the Privacy Act. The Constitution also provides a basis for adopting subject participation rights. The Fifth Amendment's guarantees of due process and equal protection, for example, have been used by the courts to require government agencies, in some circumstances, to provide individuals with notice and access rights to information about them which is held by the government.[71]

Benefits of Subject Participation. Subject participation policies offer at least three important safeguards. First, by minimizing intrusive and non-confidential practices, and by ensuring that the record-keeper uses fair and even-handed procedures, a record subject has some ability to protect his own interests. For example, a subject who receives an explanation of the record-keeper's information practices, or has notice of a particular dissemination practice, can contest the practice and/or "shop" for a more attractive "information deal." In this manner, individuals can encourage practices that minimize intrusion and maximize confidentiality.

Second, subject participation is likely to improve the accuracy, completeness, timeliness, and even the relevancy of recorded personal information. By exercising his access rights a subject can monitor and evaluate the accuracy and overall quality of data in his file. Even the mere potential for such access may give record-keepers an incentive to police the quality of information in their systems. By exercising correction and rebuttal rights, record subjects can obviate or minimize the damage that may be done by inaccurate or otherwise defective information. The quality of personal information is crucial to a record subject because the use of inaccurate, incomplete or untimely data can unfairly penalize him. Presumably, record-keepers also have an interest in maximizing the quality of information. However, a subject's standards may sometimes exceed the record-keeper's standards.

Third, subject participation rights give record subjects tools to detect and examine the basis for adverse actions taken by the record-keeper. For example, if record subjects are aware of an adverse credit or insurance decision based on identified information, they can contest effectively the validity of that adverse action. At present, both the Fair Credit Reporting Act and the Equal Credit Opportunity Act give consumers limited rights of notice regarding the source and basis of adverse decisions.[72] Without this kind of subject participation right, record subjects are likely to be at a loss to refute or even understand the basis of an adverse action.

Drawbacks to Subject Participation. Despite the benefits of subject participation rights, there are some difficult conceptual and practical problems. Ironically, the principal shortcoming may also be the principal strength, because the subject participation concept is based on the assumption that individuals will have the inclination and ability to exercise their rights.

Experience suggests that this assumption, at least in public sector record-keeping relationships, may be optimistic. For example, after an initial flurry of access requests, only a tiny percentage of record subjects other than federal employees exercise their Privacy Act right to see and copy their files.[73] Even fewer take advantage of their Privacy Act rights to amend, update or rebut information in their records.

In intimidating record-keeping relationships—such as the physician/patient or employer/employee relationship—or in relationships in which record subjects have little or no bargaining power, such as the social service agency/welfare recipient relationship, subjects may be particularly unwilling and/or unable to exercise subject participation rights.

Record-keeping relationships that generate complicated or machine printed records may also have the effect of discouraging subjects from exercising their participation rights, particularly to amend or rebut the record. For example, the automated record of a criminal history in some state systems is laced with technical references to judicial action and statutory law that few laymen have any hope of understanding.

Of course, computerization of the record does not mean automatically that the record will become complicated or confusing. However, in practice, computerizing records may do this because of the use of codes and numerical citations that frustrate easy understanding. Nevertheless, automation and machine printing of records clearly have some advantages for record subjects. For example, automation makes it possible in some instances for organizations to distribute copies of file information to record subjects inexpensively and practicably,[74] and can even facilitate updating of these files by the record subjects themselves.

In some record-keeping relationships, subject participation rights may be considered unnecessary because subjects have little interest and may objectively have little to gain. Most subjects, for example, would care little for participation rights in the record-keeping process undertaken by their laundries. Of course, citizen apathy toward the exercise of many fundamental rights—including attendance at legislative meetings and voting—is a common phenomenon. Given this fact, it may be unrealistic to suppose that many citizens will exercise rights that require greater efforts, such as participation in a record-keeping process.

Volitional and Non-volitional Subject Participation. In volitional relationships, such as many of those examined by the Privacy Commission, subjects choose to be involved in the relationships that produce the records. However, a problem arises concerning subject participation in non-volitional or adversarial record-keeping relationships.

In non-volitional relationships, such as criminal justice record-keeping for example, it may not make sense to extend to record subjects certain kinds of record-keeping participation rights; at least not while a case is active. For one thing, criminal record subjects could not use their rights to bargain for a better information deal or select a criminal justice provider more to their liking, or decide not to use the record-keeping "service." Moreover, they might use these rights to frustrate the purposes served by the record-keeping. Subject access to an open investigatory record, for instance, could normally be expected to compromise, if not terminate, an investigation.

Federal criminal justice officials already complain that limited subject access provisions to criminal investigative records in the Privacy Act and Freedom of Information Act adversely affect their ability to investigate crimes.[75] Some criminal justice officials also point out that subject access may sometimes compromise the rights of other parties, for example, by inadvertently divulging the identity of confidential sources.[76]

A third drawback of subject participation is the extent of the burden that it places upon record-keepers. Perhaps the most frequent complaint of federal agencies about the Privacy Act is the expense and time required to comply with the Act's various subject participation requirements.[77] In particular, agencies cite the Act's requirement to publish annual descriptions of the contents and users of their record systems, and the necessity to maintain a log of most third party disclosures, which is available for subject inspection.[78]

U.S. versus European Access Provisions

Notwithstanding these drawbacks, the subject access provisions in U.S. law are inexpensive and convenient for record-keepers when compared with the procedures adopted by some European nations. The West German statute, for example, requires most organizations operating personal data systems to appoint an employee to serve as a "Data Controller." The "Data Controller" is required to monitor his employer's compliance with the law and to report violations to the Government's Office of the Data Protection Commissioner.[79]

It is clear that subject participation policies represent an established and vital aspect of information privacy protections. The challenge of the 1980's is to refine the formulation and application of these policies so that their use in specific record-keeping relationships is effective and practicable. In particular, there is a need for criteria to determine which kinds of subject participation rights should be extended to particular types of record-keeping relationships.

Confidentiality Policies

Confidentiality policies place limits upon a record-keeper's discretion to disclose personal information to third parties without subject consent. Maintaining the confidentiality of personal information is usually the major interest of record subjects, because of their strong desire to ensure that personal information about themselves is not used improperly or unfairly. When only the record subject and the record-keeper have access to the information, the chances that it will be used to affect or harm the subject are reduced substantially.

Confidentiality policies are significantly affected by constitutional, statutory, and common law doctrines regarding an individual's right to privacy and to free speech.

Constitutional Law. Although the Constitution provides a basis for the development of information privacy rights as well as of other individual rights, in general, the Supreme Court has not been receptive to arguments that the Constitution prohibits the disclosure of personal information. In recent years, for example, the Court has held that bank customers do not have a constitutional right to protect their bank held records from government access, because the records are "the business records of the banks."[80] The Court has also rejected constitutional arguments that a New York statute, which requires physicians to report information about patient use of certain controlled drugs, is a violation of patient privacy.[81] Although the Court in the New York drug law case observed that some types of non-consensual disclosures might give record subjects a right to sue the government for violation of their constitutional rights, the Court has not yet identified specific examples of constitutionally offensive disclosures. In addition, the Court has suggested that the Constitution, which specifically upholds individual rights, does not prohibit criminal justice agencies from publicizing arrest record information.[82]

Common Law. Two types of common law doctrines provide relief to individuals who believe that they have been the victims of private sector record-keepers' wrongful use or disclosure of their personal information.

The first type of doctrine protecting personal information provides that some kinds of relationships create an implied contract or agreement of confidentiality. For instance, both physicians and bankers have been held liable for unauthorized disclosures of information about their patients or customers,[83] because of the fiduciary nature of those relationships and the sensitive character of the personal information involved.

The use of a contract theory in this manner is necessarily limited to those cases in which record-keepers have a direct relationship with record subjects. The protection of subject confidentiality interests becomes considerably more difficult when the records are in the hands of parties who have not had a direct relationship with the record subject. Credit bureaus, information support organizations for the insurance industry, and many governmental agencies are in this kind of position. Record subjects cannot use contract theories to police the information practices of this type of institutional record-keeper.

Tort Law. The second type of doctrine that provides relief to victims of wrongful disclosure is tort law. A tort is a wrongful act (not including a breach of contract or trust), which results in injury to another person, property or reputation, for which the injured party is entitled to compensation. Tort violations can result in various civil penalties, usually in the form of a court order for repayment of damages. In common law several tort doctrines place limits on the handling of personal information. For example, the laws of libel and slander provide protection against the unauthorized dissemination of false and derogatory personal information.[84] Other tort doctrines, such as misrepresentation, intentional infliction of mental distress, and various negligence theories also place limits on the use and dissemination of personal information.[85]

In addition, the "right-to-privacy" tort doctrine has a substantial effect on dissemination of personal information. In 1890, Samuel Warren and Louis Brandeis wrote a famous article that called for state legislation to create a "right-to-privacy."[86] In most states, invasion of privacy was not recognized as an actionable claim in common law. As a result, Warren and Brandeis, and subsequent scholars, argued that legislation was needed to protect individuals' interests in such matters as: (1) freedom from and protections against intrusion; (2) protection against appropriation and disclosure of an individual's name and likeness for commercial purposes; (3) disclosure of information that places individuals in a false light; and (4) disclosure of private facts. (The last two categories are designed primarily to prevent disclosures of technically accurate information which may adversely affect an individual, without actually falling in the category of libel or slander.)

In 1903 New York became the first state to enact a right-to-privacy statute.[87] Seventy-five years later Wisconsin's enactment of a right-to-privacy statute brought the number of states recognizing privacy rights to almost forty.[88]

First Amendment and Common Law Doctrines. As indicated above, the common law limits on the disclosure of personal information sometimes conflict with another protected interest—the First Amendment's right of free speech and press.[89] Much of the development of the law regarding privacy and defamation has come from court opinions dealing with the relationship of the right to protect one's reputation (defamation) or one's solitude and sensibilities (privacy), and the right to speak and to hear. Most of this case law examines the right of private organizations, primarily the press, to disseminate personal information without being subject to penalties based on defamation, or right-to-privacy doctrines. Some of the case law has also involved the question of whether the government can withhold from the public certain types of sensitive personal data, such as information about arrested persons or victims of crimes.

Even privacy proponents have recognized from the outset that confidentiality standards should not prohibit the disclosure of truly public information, or the discussion of matters that are of legitimate public interest. Warren and Brandeis, for example, said that their proposed "right of privacy" should give way to "any publication of matter which is of public interest or general interest."[90] In practice, by the middle part of this century, the lower courts had fashioned a very broad rule that immunized an individual or group of individuals from liability for factually accurate disclosures of "newsworthy" personal information.[91]

Decisions on Disclosure of Personal Information. In the mid 1960's the Supreme Court decided two cases involving the disclosure of personal information about newsworthy or public figures. In *New York Times v. Sullivan*[92] the Court limited the right of public officials to recover in libel actions against individuals (in this case the press), who inaccurately and critically describe their official conduct. The *New York Times* had published an inaccurate advertisement which derogatorily described the activities of the Montgomery, Alabama, Police Department. The Montgomery Chief of Police sued for defamation, and the Alabama courts awarded him substantial damages. The Supreme Court reversed the decision, stating that to permit officials to recover against the press for this type of dissemination would impair the First Amendment's free speech guarantees. The Court stressed the "profound national commitment to the principle that debate on public issues should be uninhibited, robust and wide-open . . . ."[93] The Court said that in order for a public official to prevail in a libel suit he must show that the communication was made with "actual malice," (i.e., knowledge that the information disclosed was false or with reckless disregard as to whether it was false).

Three years later the Supreme Court used this "actual malice" standard in a privacy action involving the disclosure of information about individuals who were not public officials. In *Time, Inc. v. Hill*,[94] the Court said that the First Amendment not only protects political expression, but also a broad range of communications about other matters in which the public is interested. Thus, the Hills' invasion of privacy action against *Time Magazine* for publishing an allegedly distorted and fictionalized account of the Hills' ordeal as captives of three armed convicts, could only prevail if the Hills could show actual malice (i.e., that *Time* published the information knowing that it was false or in reckless disregard of its veracity).[95]

Recently, however, the Supreme Court has made it easier for an individual to sue successfully for improper disclosure of personal information.[96] In *Wolston v. Reader's Digest Association, Inc.*,[97] the Court held that an individual's failure to testify before a grand jury, and the resulting conviction, did not mean that parties disclosing information about him years after the event enjoyed special protection from civil liability.

The law regarding the relationship of the First Amendment's right to disseminate information, and the constitutional and common law rights that restrict the dissemination of personal information, is continuing to develop.

At present, the First Amendment protects public disclosures of personal information that are *clearly* useful to the governing process. Disclosures related to other matters of public interest may also be protected. Disclosures involving private derogatory personal information, which clearly is not of "governing interest," or of information that does not relate to other matters of public interest, can be subject to actions in defamation or subject to privacy suits claiming improper release of personal information. The trouble, of course, is that it is often unclear whether the disclosure of private, sensitive or derogatory information pertains to matters of governing interest or some other legitimate public interest. The law leaves considerable latitude to individual courts to decide whether, in a given instance, the individual's interest in his privacy or reputation outweighs the public's interest in the dissemination of the information.

Confidentiality Statutes. Both existing and proposed statutory information privacy laws generally include numerous confidentiality provisions. These provisions are almost always based on at least one of four somewhat inconsistent dissemination theories:

- Personal information should be available without subject consent to parties who can demonstrate a "need to know;"
- Personal information should be available without subject consent to any party who will use the information for a purpose that is "compatible with the purpose for which the data was first developed or collected;"
- Record subjects have an "expectation of privacy" of information about themselves, and therefore such information should not be made available without subject consent unless the non-consensual disclosure is made to:
    - —service the record-keeping relationship;
    - —protect the record subject's interests;
    - —protect the record-keeper's or society's interests;
- Personal data should not be made available without subject consent.

In practice, most privacy schemes reflect a mixture of these dissemination theories. The "need-to-know" standard has been used for regulating disclosures among employees of record-keeping organizations. For instance, the Privacy Act permits all federal agencies to disseminate personal information internally to any employee needing that information, whether or not the subject has consented to this disclosure.[98] Experience with the Privacy Act and similar state legislation suggests that the need-to-know standard is usually interpreted in a manner that encourages disclosure.[99]

Flaws in the "Compatible Use" Principle. The "compatible use" principle was first formulated by HEW's Fair Information Practice Study, and permits disclosure of information to parties who will use the information for "compatible purposes." The principle was later adopted in the Privacy Act as the primary rationale for permitting non-consensual disclosures.[100] As a confidentiality protection device, the principle suffers from two deficiencies.

First, from a conceptual standpoint, it is not logical to conclude that because personal information is used for a purpose compatible with the purpose for which it was developed or collected, record subjects have no interest in contesting disclosure. In practice, record subjects may often have a significant interest in prohibiting disclosures, even to parties who will use the information for "compatible" purposes. The disclosure of information to a new party, the passage of time, and changes in background circumstances may all have the effect of making a "compatible" disclosure harmful to a subject's interests.

The second deficiency of the "compatible use" principle lies with its implementation. Federal agency compliance with the Privacy Act has not shown that a uniform, narrow definition of "compatible use" can survive—at least not in an environment where record-keeping agencies face pressures and incentives for disclosure.[101]

As a result of these problems, the Privacy Commission did not incorporate the "compatible use" principle into its private sector confidentiality recommendations. Instead, it developed a somewhat new formulation for personal information maintained in certain sensitive record-keeping relationships. Under the Commission's formulation, record subjects are said to have an "expectation of confidentiality." Record-keepers should not violate this expectation by disclosing personal information without the subject's prior consent, except to service the relationship or to protect the interests of record subjects, record-keepers or society.[102]

Flaw in "Expectation of Confidentiality." But the "expectation of confidentiality" concept is deficient as a means of privacy protection, because the notion that non-consensual disclosures should be permitted if they "service the relationship" (i.e., enhance the ability of institutional record-keepers to assist individuals), or "protect subject interests," is itself questionable. Usually, if information is really necessary to service a record subject, record-keepers should be able to obtain consent to permit the disclosures.

The validity of the concept that record-keepers may have a legitimate need to make certain non-consensual disclosures to protect their own or society's interests is easier to demonstrate. However, specific identification of non-consensual disclosures that fall into this category requires a case-by-case balancing of a subject's privacy interests against those of the competing record-keeper or societal interest served by disclosure.

Obtaining Subject's Consent to Disclosure. A final confidentiality principle used in existing and proposed privacy statutes would prohibit disclosures to any third parties without first obtaining the subject's consent. Obviously, this approach offers maximum privacy protection.

Just as obviously, having to first obtain the subject's consent is not practicable or desirable for all types of personal information, or for all record-keeping relationships. But most comprehensive privacy protection schemes rely upon more than one confidentiality principle. As one aspect of a disclosure policy in a comprehensive privacy protection scheme, a ban on certain non-consensual disclosures can be very effective strategy.

Some experts have suggested that the best approach for creating policies of dissemination for personal data is to combine a prescriptive approach (the following types of disclosure will be made or will not be made), with a judgmental approach (which permits record-keepers to make certain kinds of discretionary disclosures). This approach is used in a few states to govern the handling of criminal history record information. In Massachusetts, for example, the statute governing the handling of criminal history record information requires agencies to make certain disclosures (for example, to other criminal justice agencies within the state for criminal justice purposes), and flatly prohibits agencies from making additional disclosures (for example, to the press). Agencies are generally discreet regarding disclosures not expressly covered by statute, in keeping with the statute instructions that agencies should be biased in favor of confidentiality.[103]

Other Approaches to Safeguarding Information Privacy

Records Management Standards. Collection, subject participation and confidentiality policies are the most important types of strategies for protecting information privacy. However, a few other policy approaches are also significant. For example, many comprehensive privacy statutes, including the Privacy Act, impose detailed record management safeguards upon record-keepers. Agencies are required to establish rules of conduct for persons involved in the design and operation of record systems,[104] and to establish appropriate physical safeguards to ensure the security of personal information.[105] Other types of safeguards often found in record management schemes include requirements for data quality (timeliness, accuracy, completeness); auditing; file organization; and information segregation and purging.[106]

Some policies specify that certain types of information must be maintained in either an automated or manual environment. For example, Iowa prohibits the automation of criminal intelligence and investigative data.[107] The 20-member Council of Europe's final draft of a convention to harmonize the various European privacy laws recommends that European data protection statutes apply only to personal information maintained in automated systems.[108] Many European statutes license and regulate computerized systems more closely than manual systems. One obvious problem with this approach is that if automated systems alone are subject to privacy restrictions, it may discourage the use of automated information processing technology.

Regulatory Oversight Policies. The issue of whether or not there should be policies regarding the oversight and regulation of the operation of record-keeping systems is significant in considering the problem of safeguarding information privacy. To date, information privacy policies have not involved strong regulatory oversight. The Privacy Act, for example, does not give any agency regulatory and enforcement authority; although the Office of Management and Budget has oversight responsibility.[109] The Privacy Commission did not recommend the creation of an agency to police private sector compliance.[110] This may reflect our traditional distaste for centralized regulation, as well as a newly rekindled appreciation of the benefits of deregulation.

The approach to oversight and regulation of record-keeping systems in other nations is quite different. Nine other Western countries have enacted comprehensive privacy legislation of varying degrees of comprehensiveness: Austria, Canada, Denmark, France, Luxembourg, New Zealand, Norway, Sweden and West Germany. In addition, Belgium, the Netherlands and Spain are actively considering legislation. Finland, Ireland, Italy, Japan, Switzerland, Australia and the United Kingdom have had privacy study groups at work.[111] Statutes or proposed statutes in virtually all of the European nations create or would create a separate data protection board or agency to oversee and enforce implementation of the legislation.[112] Various European privacy protection schemes even require the licensing of some or all personal data banks.[113] In Sweden, for instance, the Data Inspection Board has broad powers to license proposed personal information systems.[114]

In this country, a statute that gives the Federal Government the authority to prohibit a private record-keeper's creation of a personal data bank would probably run afoul of the First Amendment, and would certainly be a departure from the United States' current approach to privacy protection.

Conclusion

By the end of the 1970's the doctrine of information privacy and its constituent policies represented an established and significant part of the nation's information policy. The challenge for the 1980's is three-fold. The first challenge is to apply information privacy principles to specific types of record-keeping relationships, such as employment, insurance and other private sector activities, in a manner that safeguards subject interests, while still permitting the effective use of personal data. The second challenge is to develop policies that regulate the use of information technologies, in a manner that protects individual rights while encouraging proper use of automation. The third challenge is to relate privacy policies to other types of information policies in order to encourage development of broadly based, effective information policy.

Notes

[1] *Griswold v. Connecticut*, 381 U.S. 479 (1965).

[2] *Stanley v. Georgia*, 394 U.S. 557 (1969).

[3] *Roe v. Wade*, 410 U.S. 113 (1973).

[4] *Whalen v. Roe*, 429 U.S. 589 (1977).

[5] This capsule description of information privacy as a democratic value is indebted to numerous published discussions of the privacy concept. See e.g., K. Greenwalt, "A Report on Privacy," (Monograph, Washington, D.C.: Office of Telecommunications Policy, Office of the President, 1976); T. Baker, *Does Privacy Have a Principle?* 26 Stanford Law Review 1161-89, (1974); R. B. Parker, *Definition of Privacy*, 27 Rutgers Law Review 275-96, (1974); Stanton Wheeler, ed., *On Record: Files and Dossiers in American Life* (New York: Russell Sage Foundation, 1969); and Alan F. Westin, *Privacy and Freedom* (New York: Atheneum, 1967).

[6] This capsule discussion of privacy as a liberty value is indebted to numerous published works on the topic, including principally: E. J. Bloustein, *Privacy as an Aspect of Human Dignity: An Answer to Dean Prosser*, 39 New York University Law Review 962-1007 (1964), pp. 962, 1003; Erving Goffman, *Behavior in Public Places* (New York: Free Press of Glencoe, 1963), (Goffman states that the process of surveillance chills human conduct and behavior.); C. Fried, *Privacy*, 77 Yale Law Journal 475-93 (1968), (Fried notes that surveillance, particularly record surveillance, compromises an individual's freedom to enter into relationships of trust—in this sense the privacy as a liberty interest also has an effect upon participatory democracy); and L. Henkin, *Privacy and Autonomy*, 74 Columbia Law Review 1410-31 (1974); A.W. Alschuler, *A Different View of Privacy*, 49 Texas Law Review 872-80 (1971). Some theorists question whether individuals do in fact have any interest in privacy. Arthur S. Miller in *Privacy in the Modern Corporate State: A Speculative Essay*, 25 Administrative Law Review 231-67 (1973) argues that privacy is an antiquated 19th Century value of little significance in the present age. Miller, like psychologist B. F. Skinner, believes that individuals want security and authority, not privacy and freedom. According to Miller this desire is entirely in tune with the type of life values that a modern technological society is able to nurture.

[7] See e.g., Vance O. Packard, *The Naked Society* (New York: D. McKay Co., 1964); Myron Brenton, *The Privacy Invaders* (New York: Coward-McCann, 1964); Westin, *Privacy and Freedom*; and Arthur R. Miller, *The Assault on Privacy* (Ann Arbor: The University of Michigan Press, 1971).

[8] One of the best discussions of this period regarding the emergent role of the Federal Government and the growth of "governmental largess" is found in C. A. Reich, *The New Property*, 73 Yale Law Journal 733-87 (1964); and for perhaps the most comprehensive published work on the effect of government information practices on record subjects, see Project, *Government Information and the Rights of Citizens*, 73 Michigan Law Review 971-1340 (1975) (Entire Issue). One theorist identifies five changes in the nature of government that, in his view, combine to threaten the continued existence of personal privacy. These changes include:

1. Modern government is a positive force—not merely a referee;
2. Government engages in active economic planning;
3. Executive hegemony;
4. Bureaucratic hegemony; and
5. Blurring of the distinction between public and private.

See Miller, *Privacy in the Modern Corporate State*, note 6 supra.

[9] See e.g., *United States v. Miller*, 425 U.S. 435 (1976), which holds that an individual cannot assert Fourth Amendment protections regarding his financial information once that data has been placed in the hands of a third party, including his bank.

[10] 42 *U.S. Code Annotated*, Section 2720(b) (1973 & West Supp. 1980). Section 2720(b) was repealed by the Comprehensive Employment and Training Act of 1973, Public Law No. 93-203, 87 *Statutes at Large* 839, on December 23, 1973.

[11] See e.g., The Equal Credit Opportunity Act of 1974, as codified in 15 *U.S. Code Annotated*, Sections 1691-1691(c) (West Supp. 1980); The Employee Retirement Income Security Act of 1974, Public Law No. 93-406, 88 *Statutes at Large* 898, as codified in 26 *U.S. Code Annotated*, Section 410 et seq. (1978); The Equal Employment Opportunity Act of 1972, Public Law No. 92-261, 86 *Statutes at Large* 103, as codified in 5 *U.S. Code Annotated*, Section 5108 and Sections 5314-5316 (1980 & West Supp. 1980); and 42 *U.S. Code Annotated*, Section 2000(c) et seq. (1974).

[12] James Rule, "The Protection of Privacy: An Overview" (Monograph, Washington, D.C.: Privacy Protection Study Commission, 1976).

[13] See e.g., A. R. Miller, *Personal Privacy in the Computer Age: the Challenge of a New Technology in an Information-Oriented Society*, 67 Michigan Law Review 1091-1246 (1969), reprinted in A. R. Miller, *The Assault on Privacy* (1971); Project, *Computerization of Government Files: What Impact Upon the Individual?* 15 University of California at Los Angeles Law Review 1371-1498 (1968); J. A. Meldman, *Centralized Information Systems and the Legal Right to Privacy*, 52 Marquette Law Review 335-54 (1969); R. Ruggles, J. D. Pemberton, Jr., and A. R. Miller, *Symposium: Computers, Data Banks, and Individual Privacy*, 53 Minnesota Law Review 211-45 (1968); and for one of the first and most influential treatments of record systems and automation, see K. L. Karst, *The Files: Legal Controls Over the Accuracy and Accessibility of Stored Personal Data*, 31 Law and Contemporary Problems 342-76 (1966).

[14] U.S., Congress, House, Committee on Government Operations, *Hearings Before the Special Subcommittee on Invasion of Privacy on the Computer and the Invasion of Privacy*, 89th Cong., lst sess., 1966.

[15] See note 7 supra; and Westin, *Privacy and Freedom*, pp. 365-66.

[16] U.S., Privacy Protection Study Commission, *Personal Privacy in an Information Society: The Report of the Privacy Protection Study Commission on Technology and Privacy* (Washington, D.C.: Government Printing Office, 1977), Appendix 5, "Technology and Privacy."

[17] *Ibid.*, pp. 10-15.

[18] *Ibid.*

[19] Alan F. Westin and Michael Baker, *Databanks in A Free Society* (New York: Quadrangle/New York Times Book Co., 1972).

[20] See Lance J. Hoffman, *Modern Methods for Computer Security and Privacy* (Englewood Cliffs, N.J.: Prentice Hall, 1977).

[21] U.S., Congress, Senate, Committee on the Judiciary, *Report of the Subcommittee on Constitutional Rights on Surveillance Technology Policy and Implications: An Analysis and Compendium of Materials*, 94th Cong., 2d Sess., 1976.

[22] *Ibid.*

[23] See R. R. Belair and C. D. Bock, *Police Use of Remote Camera Systems for Surveillance of Public Streets*, 4 Columbia Human Rights Law Review 143-202 (1972).

[24] See Ford Rowan, *Technospies* (New York: G. P. Putnam's Sons, 1978), p. 220. One theorist even designed an "emotional sensor" that could be surgically implanted into allegedly violent parolees and other individuals that the government might want to monitor. See Note, *Anthropotelemetry: Dr. Schwitzgebel's Machine*, 80 Harvard Law Review 403-21 (1966).

[25] See R. M. Terry, *Privacy: the Polygraph in Employment*, 30 Arkansas Law Review 35-48, (1976).

[26] "Don't Look Now But Your Eyes Reveal Those Little White Lies," *Science Digest* 83 (May, 1978), 29-33.

[27] Dan Dorfman, "End of Trust, Voice Analyzer Watches," *Esquire* 91 (April 24, 1979), 8.

[28] See U.S., Department of Health, Education, and Welfare, Secretary's Advisory Committee on Automated Personal Data Systems, *Records Computers and the Rights of Citizens* (Washington, D.C.: Government Printing Office, 1973).

[29] Fair Credit Reporting Act, Public Law No. 91-508, 84 *Statutes at Large* 1114, as codified in 15 *U.S. Code Annotated*, Section 1681 et seq. (1974). The Fair Credit Reporting Act (FCRA) includes rather modest subject access safeguards and third party disclosure restraints for certain types of credit and personal history reports. The privacy reforms in the FCRA are generally considered to be inadequate. Perhaps as a consequence, the FCRA has not had much influence on legislation or policy for handling other types of personal information.

[30] See e.g., Public Law 93-495, 88 *Statutes at Large* 1500, approved by President Gerald R. Ford on October 28, 1974, for information privacy legislation within Title III (The Fair Credit Billing Act, as codified in 15 *U.S. Code Annotated*, Sections 1601, 1602, 1610, 1631-32, 1637, 1666-1666j) (West Supp. 1980) and Title V (the Equal Credit Opportunity Act), 15 *U.S. Code Annotated*, Section 1691 et seq. (West Supp. 1980). See also, the Fair Debt Collection Practices Act, Public Law 95-109, 91 *Statutes at Large* 874, as codified in 15 *U.S. Code Annotated*, Sections 1601, 1692-16920 (West Supp. 1980). The Privacy Protection Act of 1980 is not referred to in the text of this chapter. But, see Public Law No. 96-440, 94 *Statutes at Large* 1879 (October 13, 1980).

[31] 20 *U.S. Code Annotated*, Section 1232 (1978).

[32] 5 *U.S. Code Annotated*, Section 552(a) (1977 & West Supp. 1980).

[33] 20 *U.S. Code Annotated*, Section 1232g(b)(1) (1978 & West Supp. 1980).

[34] See A. V. Jacobson, 1974 *Educational Rights and Privacy Act*, 45 Journal of Kansas Bar Association 185-93 (1976).

[35] See S. N. Schatken, *Student Records at Institutions of Post-Secondary Education: Selected Issues Under the Family Educational Rights and Privacy Act* 1974, 4 Journal of College and University Law 147-78 (1977).

[36] The Privacy Act's legislative history indicates that the Congress viewed the legislation as a somewhat experimental attempt to implement the HEW Fair Information Practice principles.

[37] See Wallis E. McNain, ed., *Review and Analysis of Privacy and Freedom of Information Law in the States*, (Washington, D.C.: Plus Publications, 1977).

[38] 5 *U.S. Code Annotated*, Section 552a(e)(4) (1977).

[39] See e.g., Comment, *The Freedom of Information Act's Privacy Exemption and The Privacy Act of 1974*, 11 Harvard Civil Rights-Civil Liberties Law Review 596-631 (1976).

[40] 5 *U.S. Code Annotated*, Section 552(b)(6) (1977).

[41] See *Getman v. NLRB*, 450 F.2d 670 (D.C. Cir. 1971).

[42] For an analysis of the Privacy Act see Chapter 13, "The Relationship Between Citizen and Government: The Privacy Act of 1974," of the Privacy Protection Study Commission's Report on *Personal Privacy in An Information Society*, and Appendix 4 to this report, which is published separately and entitled "The Privacy Act of 1974: An Assessment."

[43] *Ibid.* See R.R. Belair, *Agency Implementation of the Privacy Act and the Freedom of Information Act: Impact on the Government's Collection, Maintenance and Dissemination of Personally Identifiable Information*, 10 John Marshall Journal of Practice and Procedure 465-512 (1977).

[44] See T. Duncan and P. B. Wolfe, *Information Privacy: The Concept, Its Acceptance and Effect on State Information Practices*, 15 Washburn Law Journal 273-89 (1976).

[45] U.S., Privacy Protection Study Commission, *Personal Privacy in an Information Society: The Report of the Privacy Protection Study Commission on Technology and Privacy* (Washington, D.C.: Government Printing Office, 1977).

[46] S. 865, Privacy of Medical Information Act, 96th Cong., 1st sess., 1979.

[47] S. 867, Privacy of Research Records Act, 96th Cong., 1st sess., 1979.

[48] S. 855, First Amendment Privacy Protection Act, 96th Cong., 1st sess., 1979. See also Privacy Protection Act of 1980, Public Law No. 96-440, 94 *Statutes at Large* 1879 (October 13, 1980).

[49] S. 1929, Privacy of Electronic Funds Transfers Act, 96th Cong. 1st sess. 1979.

[50] S. 1928, H.R. 5555, H.R. 5559, H.R. 5946, Fair Financial Information Practices Act, 96th Cong., 1st sess., 1979.

[51] See U.S., Department of Commerce, News Release, October 2, 1979, examining Secretary of Commerce Juanita M. Kreps' News Conference for October 2nd, in which Secretary Kreps announced proposed legislation.

[52] *Ibid.*

[53] Naturally, some specific principles have effects or characteristics that place them in more than one category. Where such an overlap exists, it is noted in the discussion.

[54] *NAACP v. Alabama*, 357 U.S. 449 (1958).

[55] *Lamont v. Postmaster General*, 381 U.S. 301 (1965).

[56] See *Tatum v. Laird*, 444 F.2d 947 (D.C. Cir. 1971); *Anderson v. Sills*, 56 N.J. 210, 265 A.2d 678 (N.J. 1970); and Note, *Direct Injury Must be Shown Before a Court May Grant Relief From General Government Surveillance*, 8 University of Richmond Law Review 351-58 (1974).

[57] *Katz v. United States*, 389 U.S. 347 (1967) and see Note, *Katz and the Fourth Amendment: A Reasonable Expectation of Privacy*, 23 Cleveland State Law Review 63-89 (1974); Comment, *Papers, Privacy and the Fourth and Fifth Amendments: A Constitutional Analysis*, 69 Northwestern University Law Review 626-52 (1974).

[58] See Comment, *The Protection of Privacy by the Privilege Against Self-Incrimination: A Doctrine Laid to Rest?* 59 Iowa State Law Review 1336-50 (1974).

[59] *United States v. Wade*, 388 U.S. 218 (1967).

[60] See *Griswold v. Connecticut*, 381 U.S. 479, 486 (1965) with Justice Goldberg concurring; and see R. H. Clark, *Ninth Amendment and Constitutional Privacy*, 5 University of Toledo Law Review 83-110 (1973).

[61] 18 *U.S. Code Annotated*, Section 2510 et seq. (1970 & West Supp. 1980). If one of the parties in a conversation consents to the interception, the Omnibus Crime Control and Safe Streets Act permits the tap or bug. For a discussion of the Act and its privacy implications, see J. F. Decker and J. Handler, *Electronic Information Gathering and the Omnibus Crime Control and Safe Streets Act of 1968*, 44 Fordham Law Review 331-54 (1975).

[62] 15 *U.S. Code Annotated*, Section 1692e (West Supp. 1980).

[63] Title XI of the Financial Institutions Regulatory and Interest Rate Control Act of 1978, Public Law No. 95-630, 92 *Statutes at Large* 3641, 3697, as codified in 12 *U.S. Code Annotated*, Section 3401 et seq. (1980). Public Law No. 95-630 took effect on March 10, 1979.

[64] Section 7 of Public Law 93-579, 88 *Statutes at Large* 1896, as listed in 5 *U.S. Code Annotated*, Section 552a, Historical Note (1977).

[65] 5 *U.S. Code Annotated*, Section 552a(e)(7) (1977).

[66] *Jones v. Avis Rent-a-Car* No. 28241 (Johnson Co. Cir. Ct. Ind., November 8, 1979) as reported in *Privacy Journal*, December 1979, p. 6. The jury granted $800,000 in damages to the woman and $50,000 to her husband.

[67] 15 *U.S. Code Annotated*, Section 1691 (West Supp. 1980).

[68] In 1974, the Congress created the Commission on Federal Paperwork to "study and investigate statutes, policies, rules, regulations, procedures, and practices in the Federal Government relating to information gathering, processing and dissemination, and the management and control of these information activities." See Public Law No. 93-556, 88 *Statutes at Large* 1789, as codified in 44 *U.S. Code Annotated*, Section 3501 (West Supp. 1980).

[69] The Carter Administration testified on February 7, 1980, during the second session of the 96th Congress, in support of H.R. 6410, the Federal Information Policy Bill, which would encourage the interagency sharing of data pursuant to certain protections. H.R. 6410 became Public Law No. 96-511 when it was signed by the President on December 11, 1980.

[70] See "HEW Office Prepares for Second Round of 'Anti-Fraud' Matching Project." *Access Reports*, 11 September 1979, p. 3.

[71] See e.g., *Clarksburg-Columbus Short Route Bridge Co. v. Woodring*, 89 F.2d 788 (D.C. Cir.), rev'd per curiam, 302 U.S. 658 (1937).

[72] See 15 *U.S. Code Annotated*, Section 1681m (1974) and 15 *U.S. Code Annotated*, Section 1691e (West Supp. 1980).

[73] For an analysis of Privacy Act implementation experience, see note 42 supra; and Belair, *Agency Implementation of the Privacy Act*, p. 496.

[74] See Report of Privacy Protection Study Commission, *Personal Privacy in an Information Society*, Appendix 3, "Employment Records," for the Testimony of Inland Steel Corp., pp. 66-67.

[75] See *Access Reports*, 5 September 1978, and U.S. General Accounting Office, *Impact of the Freedom of Information and Privacy Acts on Law Enforcement Agencies*, 15 November 1978, GGD-78-108 (Washington, D.C.: Government Printing Office, 1978).

[76] See Belair, *Implementation of the Privacy Act*, p. 485.

[77] Report of the Privacy Protection Study Commission, *Personal Privacy in an Information Society*, Appendix 4.

[78] 5 *U.S. Code Annotated*, Section 552a(c) (1977).

[79] *Strategic Responses to Regulation of Transnational Data Flows. The Data Protection/Privacy Compliance Guide: National Laws and International Agreements*, A Study by LINK Resources Corp. of New York, New York, and Transnational Data Reporting Service, Inc. of Washington, D.C., 1979, p. 341.

[80] *United States v. Miller*, 425 U.S. 435, 440 (1976).

[81] *Whalen v. Roe*, 429 U.S. 589 (1977).

[82] *Paul v. Davis*, 424 U.S. 693 (1976).

[83] *Hammonds v. Aetna Casualty & Surety Co.*, 243 F.Supp. 793 (N.D. Ohio 1965); *Horne v. Patton*, 291 Ala. 701, 287 So.2d 824 (1973) (physicians have an implied contract of confidentiality); *Milohnich v. First National Bank of Miami Springs*, 224 So.2d 759 (Dist. Ct. App. Fla. 1969) (bank has an implied contract of confidentiality).

[84] See M. N. Sheinman, *Torts-Invasion of the Right of Privacy-Libel*, 13 University of Pittsburgh Law Review 435-38 (1952).

[85] See e.g., *Emerging Tort of Intrusion*, 55 Iowa Law Review 781 (1970); *Right of Privacy and Emotional Distress in Colorado*, 43 University of Colorado Law Review 147-54 (1971).

[86] S. Warren and L. D. Brandeis, *The Right to Privacy*, 4 Harvard Law Review 193-220 (1890).

[87] 1903 New York Laws, Chapter 132, Sections 1-2, as contained in New York Civil Rights Law, Sections 50-51 (McKinney's Consolidated Laws Annotated, 1976).

[88] 1978 Wisconsin Laws, Chapter 176, Section 5, effective November 30, 1977, as contained in *Wisconsin Statutes Annotated*, Section 895.50 (West Supp. 1980).

[89] See e.g., Note, *Constitutional Law-Media Freedom of Speech and the Press-Defamation*, 1974 Wisconsin Law Review 1167-79 (1974).

[90] Warren and Brandeis, *The Right to Privacy*, p. 214.

[91] *Sidis v. F-R Publishing Co.*, [illegible] F.2d 806 (2nd Cir.) cert. denied, 311 U.S. 711 (1940).

[92] 376 U.S. 254 (1964).

[93] *Ibid.*, 270.

[94] 385 U.S. 374 (1967).

[95] See N. G. Nimmer, *The Right to Speak from Time to Time: First Amendment Theory Applied to Libel and Misapplied to Privacy*, 56 California Law Review 935-67 (1968).

[96] See Note, *The Demise of the Public Figure in Defamation Cases and the Ascent of a Responsible Press, Time, Inc. v. Firestone*, 26 DePaul Law Review 863-73 (1977).

[97] 443 U.S. 157 (1979).

[98] 5 *U.S. Code Annotated*, Section 552a(b)(1) (1977).

[99] Report of the Privacy Protection Study Commission, *Personal Privacy in An Information Society*, p. 516.

[100] 5 *U.S. Code Annotated*, Sections 552a(b)(3), 552a(a)(7) and 552a(e)(4)(D) (1977).

[101] See James T. O'Reilly, *Federal Information Disclosure*, 2 vols. (Colorado Springs: Shepard's/McGraw-Hill 1979), Vol. II, Section 21.05; and *Local 2047, AFGE v. Defense General Supply Center*, 423 F.Supp. 481 (E.D. Va. 1976).

[102] See Report of Privacy Protection Study Commission, *Personal Privacy in An Information Society*, p. 19.

[103] 5 Annotated Laws of Massachusetts, Chapter 6, Sections 167-178 (1972).

[104] 5 *U.S. Code Annotated*, Section 552a(e)(9) (1977).

[105] *Ibid.*, Section 552a(e)(10).

[106] See e.g., the regulations governing state criminal history record information systems, as contained in 28 *Code of Federal Regulations*, Part 20 (1979).

[107] 1973 Iowa Acts, Chapter 294.8, as contained in *Iowa Code Annotated*, Section 692.8 (West 1979).

[108] Becky Barna, "Information Management: A New Threat to Multinationals," *Computer Decisions*, August 1978, p. 34.

[109] Section 6 of Public Law No. 93-579, 88 *Statutes at Large* 1896, as listed in 5 *U.S. Code Annotated*, Section 552a, Historical Note (1977).

[110] See Report of Privacy Protection Study Commission, *Personal Privacy in An Information Society*, p. 37. However, the Commission did recommend that a permanent oversight and study group be created.

[111] *Transnational Data Report: The International Report on Information Politics and Regulation*, I, No. 2 (May 1978).

[112] Based on an analysis of the compilation of privacy protection statutes which are contained in *Strategic Responses to Regulation of Transnational Data Flows. The Data Protection/Privacy Compliance Guide: National Laws and International Agreements*, A Study by LINK Resources Corp. of New York, New York and Transnational Data Reporting Service, Inc. of Washington, D.C., 1979.

[113] *Ibid.*

[114] *Ibid.* See e.g., Section 2 of the Swedish Data Act of 1973, as amended July 1, 1979.

PART TWO

Economic Efficiency and Equity

The fundamental principle underlying a free market economy such as that existing in the United States, is belief in the benefits of maximum competition among private sector organizations for the production and distribution of goods and services. This marketing principle also applies to the production and distribution of information goods and services. Unlike communications services in most other countries in the world, basic radio, television, and telephone services in the United States are provided by the private sector. These services are increasingly available on a competitive basis, although there are significant economic factors which inherently limit the amount of competition that is feasible. In addition, new electronic services are emerging which are similar to and sometimes combine telephone and broadcasting technology with electronic mail and computerized printing; and these new services are greatly expanding opportunities for both information providers and consumers.

American patent and copyright laws protecting the privacy of information have a constitutional basis in the concept of private property, from which an incentive system has evolved recognizing and encouraging competition in the realm of information creation. But recent technological incursions against the concept of private property as it pertains to information have become a source of major concern to those desiring to protect the privacy of their ideas and information. Unauthorized copying of books and articles, as well as piracy of broadcast programs, reduce the economic value of creating information for individuals and private organizations. This diminution of the concept of private property in turn could lead to a reduction in the output of new ideas and materials.

As a consequence of a highly competitive system for disseminating information and for providing data services, Americans are exposed to a great deal of information. The human mind cannot generally absorb so constant a bombardment of ideas. Many people simply tune out (e.g., by listening to the broadcast media less or by reading fewer newspapers), do not concentrate on what is being said, or pay attention to only a few sources of information that they consider reliable. For decision-makers—executives, managers, and policymakers, for example—the management of information becomes especially important. Filtering mechanisms must be developed to direct appropriate, timely information to them with a minimum of diversion to irrelevant details. Technology plays a dual role here because of its capacity to increase and diversify information flows, as well as its capabilities for sorting, reducing, storing, and targeting information for use on a highly individualized basis.

The principal tension regarding the creation, production, distribution, and management of information is a result of the careful balance that must be maintained between the assurance of equitable access to information and information services for all sectors of society, and the controls needed for superfluous information in order to preserve the efficiency of individuals and organizations. Some competing personal, proprietary and societal interests are:

- The desire for profitable pricing of information versus the need to have maximum information available and accessible at little or no charge. Pricing information goods and services to obtain a profit or even a return on investment may make them too expensive for many categories of consumers. A competitive market structure, while it generally holds the prices of goods down, may not provide a mechanism for subsidies to those who need certain information services and cannot pay the going rate in order to get them.
- The need to protect intellectual property versus the risk of severely limiting the distribution of ideas. The protection of intellectual property, either by patent or copyright, so that it is not available to consumers without cost, encourages the creation of ideas, inventions, and other works, but may limit their distribution.
- The privilege of receiving information in accordance with the individual's technical expertise or ability to pay versus the risk of eliminating certain types of consumers. The organization of information targeted for specific consumers, particularly through electronic systems, discourages or eliminates other consumers who cannot pay for the service, or who do not have the expertise to operate the sophisticated computer and telecommunications technologies through which the information flows.

The attempt to resolve these diverse interests and to achieve efficient and equitable production, distribution, and use of information goods and services is reflected in United States economic policy, constitutional interpretation, and federal information management policy. Furthermore, information production, distribution and use are all predicated on the resolution of the tensions among personal, societal, and proprietary rights in regard to information itself.

The Functioning of Information Markets

The market structure of industries that distribute information goods and services, whether competitive or monopolistic, free or regulated, plays an important role in determining who communicates what sorts of information to various audiences. The market structure also determines the incentives for innovative uses of information technologies and services.

Information is different in some significant ways from tangible commodities sold in the marketplace. Because of this, markets for information products may not operate in the same ways as markets for tangible commodities. The atypical characteristics of information products are enumerated below.

- Information can be possessed by many persons simultaneously. Cars and shoes, on the other hand, cannot.
- It is difficult to prevent persons who wish to do so from possessing particular pieces of information. If a business wants to sell information to a limited number of people, it may not always be able to prevent others from obtaining that information without paying for it, thereby potentially reducing its value to the original consumers as well as potentially depriving the provider of additional revenue.
- It is difficult to determine the value of information to a particular consumer without disclosing the information—that is, the object of the sale itself—and consequently lowering its value. A description of breakfast cereal as delicious, however, or a display of dresses on a rack, may enhance their value to consumers.
- Information can become obsolete, but it cannot be depleted. Frequent use of current information does not wear it out, as would frequent use of a new hat or a bicycle.
- It is difficult to divide information into clearly separate units, to say, for example, that a book contains 16 ideas to be sold at 10 cents a piece. However, this is a common method of pricing tangible commodities.

United States policy is based upon the belief that whatever can be distributed through a free market should be, and this includes information goods and services. There are, however, inefficiencies in information markets—that is, interferences with the free market—that result from the atypical characteristics of information, and these market interferences can have a significant impact on policy choices regarding information distribution Some of these inefficiencies are described below.

- Information production and distribution often tend to produce economies of scale and scope—that is, frequently in order to make a profit, providers of information and information services must be large firms offering a diversity of products. The size and scope of such information services may limit competition.
- There are structural and pricing barriers that impede the entry of information firms into the market. This is because federal regulation often denies entry of firms not already recognized. For example, the regulation of AT&T as a monopoly for the provision of telephone lines prohibits the entry of other companies into this market. Also, existing firms can acquire scarce resources and can price products so as to keep new firms from competing.
- The government's enforcement of anti-trust laws breaks up anti-competitive market structures and pricing arrangements and encourages competition, but the government itself can create inefficiencies if it arbitrarily divides up markets.

Fundamental notions of the desirability of equitable distribution of certain information goods and services inevitably result in a conflict with the notion of a free market for information. Policies to achieve equity of information distribution enhance the informed participation of certain sectors of society that could not otherwise afford to purchase information goods and services at the going commercial rates. Government or private sector subsidies of information goods or services are a means of achieving this equitable objective. Universal telephone service and the current structure of postal rates provide examples of subsidies creating wide-spread societal participation in information services. Pricing schemes involving price discrimination and cross-subsidies, economic stratagems employed by federally regulated monopolies controlling information goods and services, provide examples of the government's interest in maintaining equitable rates for all information consumers. These pricing schemes would be violations of anti-trust law if used by profit-making firms to destroy competition. However, non-profit publishers of information and federally regulated monopolies, like AT&T, frequently are encouraged, or even sanctioned by law, to use such pricing schemes to provide universal or other equitable distribution of goods or services.

The Federal Government, of course, plays a major role in the information goods and services marketplace. In addition to regulating information markets, it produces and distributes information, either because the private sector is not willing to do so, or because it has an interest in informing the public on a variety of topics. When the private sector is able to package and distribute federally generated information, there is a general policy presumption that it should be encouraged to do so. However, whether the government should distribute information when it can do it at lower cost to the consumer is a legitimate issue.

The structure of information markets has a significant impact on the diversity of both source and content of information distributed. For example, in the mass telecommunications media, where advertising is the major source of revenue to information providers, and where large audiences for few programs are essential, there cannot be much diversity. The amount of cross-ownership among newspapers, radio and television stations, cable stations, and other media may also affect the amount of diversity, as does the desire of firms to produce a number of different information products. Policies such as limiting cross-ownership of media, compulsory access to media in certain circumstances, or operation of mass media conduits as common carriers similar to telephone communications, are possible solutions.

Incentives to Create Information

There are essentially two ways in which the Federal Government encourages individuals to create information, which are by establishing a private property right in information created, and by establishing direct or indirect subsidies for information creation. In addition, state laws and the common law of unfair competition permit the proprietary protection of useful information as trade secrets.

The United States, as stated in the Constitution, relies on copyrights and patents as its principal mechanisms for encouraging the creation of information. This emphasis reflects the belief that private enterprise, rather than government, should supply most goods and services.

Some types of information goods and services developed in the past few decades as an outgrowth of emerging technologies, do not fit easily into the traditional categories of legal protection. For example, computer software possibly could be protected either under copyright as the work of an author, or under patent as the discovery of an inventor, or under both, or neither.

Furthermore, the capacity of new technology to copy and alter written, recorded, or broadcast material, including computer-readable works, poses problems for the protection of intellectual property rights. It is now easy to reproduce materials and to distribute them without the knowledge of their creator. It is also easy to alter computer programs so that they no longer qualify as the exclusive work of their originator.

Government subsidies of information creation—that is, payment directly through grants or contracts—are immune from the problems which plague copyright and patent protections. Subsidies provide two advantages over intellectual property rights. They are able to encourage creation of more information by guaranteeing payment to the creators, thereby eliminating concern over reproduction of work. In addition, subsidies eliminate the need for a legal doctrine that makes artificial distinctions among works based on content or form. However, government subsidies of information creation substantially increase the opportunity for the government to exercise censorship or otherwise control the content of the information created.

As an incentive to create information, intellectual property rights have long range advantages in a society which seeks open availability of information; intellectual property rights promote the creation of information without government control of its content, and they are usually more responsive than subsidies to consumer needs.

Managing Information

No discussion of information policy would be complete without mention of information management. To some, information policy is synonymous with information management. More precisely, information management is merely a significant aspect of information policy. This confusion is particularly understandable, however, because of the well-known problem encapsulated by the statement: "Most people and organizations have an overload of data but a scarcity of information that is meaningful to them."

Information management not only deals with the need of individuals and organizations to convert data into information, but it also deals with the problems of getting the right information to the right people at the right time and in the right form. Problems of information glut and information scarcity are aspects of information management. Other aspects of information management include information redundancy, faulty information, unreasonable information collection and reporting burdens on those sources from which an organization requests information, and excessive costs of handling information within an organization.

The Federal Government has a number of laws and regulations governing information management which operate with varying degrees of effectiveness. The six most significant are: The Federal Records Act, the Federal Reports Act, the Brooks Act, the Privacy Act, the Freedom of Information Act, and the Paperwork Reduction Act of 1980.

Some generally recognized policies of information management are being tried by federal agencies in an attempt to overcome the problems outlined above. These management policies include: establishing mechanisms for sharing data among agencies, involving data users more heavily in designing management information systems, increased policy level decision-making about information management, closer coordination among agencies and organizations with similar responsibilities for management of data and information, and education and training of a variety of categories of personnel, both to manage and to use information systems more effectively.

Chapter IV

The Functioning of Information Markets

By Yale M. Braunstein

Chapter Four identifies and discusses the economic consequences of the properties or characteristics of information and the market structure of information industries. In addition, this chapter analyzes the effects these factors have on the pricing and dissemination of information products and services. The major portion of the analysis concerns the extent to which traditional economic rules and approaches to marketing goods and services—such as perfect competition, universal service, and "full cost recovery," or regulation attempting to achieve equity—may or may not lead to the most desirable levels of production, distribution, and use of information.

Clearly, there are multiple policy alternatives, with two opposing examples serving to illustrate some of the trade-offs involved. One policy option open to the government is the provision of a universal service such as that supplied by the U.S. Postal Service; a parallel governmental option is the decision to require private telephone companies to render universal service. Choices of this type are based on the widespread, critical need for such public services. Yet inclusion of all or nearly all consumers who need universal services may be achieved at the expense of a price system providing the right signals for wise investment and improved efficiency. In contrast to the provision of universal service, there is another government policy option of permitting private enterprises to offer the goods and services that users are willing and able to pay for. General tenets about competitive enterprise lead to the conclusion that such arrangements provide the best prices and most innovations, but at the cost of neglecting some consumers, perhaps rural or poor, who would not share fully in these benefits.

Economic Policy on Information

There are several reasons why the structure of information industries is an appropriate subject for policy. The type of structure—whether it is competitive or monopolistic, administered or free—plays an important role in determining who communicates what sorts of information to various audiences. It also determines the incentives for innovative uses of information technologies and services.

Economic analysis can provide us with information about the available policy choices, both for the traditional telecommunications services such as telephone and television, and for other information services such as scientific publishing, news distribution by press associations, and the services of the emerging computer-communications firms.

Inevitably, information policy issues are, to a large degree, affected by economic considerations. These economic considerations include a number of aspects not addressed in this chapter, such as the development of optimal prices for information goods and services, the free flow of information in the marketplace, and the ability to use sophisticated technologies and services.

Factors in Economic Policy-Making. The chapter focuses on six factors which illustrate some of the essential considerations in making economic policy about information and information services. These are:

- diversity in information and in sources of information,
- universal service and the availability of information,
- inefficiencies in the production and distribution of information,
- the role of the Federal Government in the marketplace,
- the effect on markets of separation of content and conduit, and
- standards and vertical integration.

The subject matter of these concerns demonstrates how market structure and pricing influence both the range of

The views and conclusions contained in this chapter reflect those of the author, and should not be interpreted as necessarily representing the official policies or recommendations of the National Telecommunications and Information Administration, the U.S. Department of Commerce, or the U.S. Government.

choices available and the specific outcomes of various information policies. The analysis reinforces the need to understand at the outset the ways in which information and information markets are different from ordinary goods and services and their markets.

SECTION ONE

Economic Consequences of Intrinsic Properties of Information

Because information often differs from ordinary goods, markets for information products may not operate in the same ways as markets for ordinary products or services. This section will demonstrate how, without government intervention, the supply of many types of information may fall below the levels that people would be willing to pay for if they could effectively express their demands. The government may need to take measures in order to compensate for the deficit in the supply of information products arising as a logical consequence of the intrinsic characteristics of the information itself.

How Information Differs from Ordinary Goods

In an analysis of information, it is useful to distinguish between two concepts: the message that an individual can receive, send, or store, and the conduit or medium used to disseminate or store the message. This section focuses on the first of these concepts; the second concept will be discussed at the end of the chapter.

Information, as defined, tends to differ in its sending, receiving, or storing from that of ordinary goods and services in five ways, which are more a matter of degree than of absolute differences. These differences, however, tend to make trade in information particularly difficult, unless property rights and liabilities are well specified. Thus, copyrights and subsidies, and the role they play in the creation and trade of information, will be the focus of discussion in Chapter Five.

Possession. Ordinary goods can usually have only one owner or possessor at a time. Goods may be considered scarce when one person's possession deprives another; to serve another user requires another unit. However, information can never be truly scarce in that sense, because the marginal cost of permitting an additional person to possess the information is low, and one person knowing the information does not prevent others from knowing it as well. Any number of people can know the same facts at the same time without congestion or deprivation of information. By the marketing procedure of controlling information and its price, however, information can be made to appear in scarce supply.

Exclusion. A viable business must restrain the flow of benefits from its products from reaching people who do not pay for them. For any entrepreneur who must decide how much to spend on exclusion of non-payers from his products' benefits, information, with its quality of facile flow, is a product which presents more than average difficulties. In addition to information in radio and television broadcasts, the goods which pose the greatest difficulties in terms of withholding benefits are the same ones that are equally available to everyone: lighthouses, military protection, and flood control projects. Financing such goods necessitates some sort of plan to enforce collection of payments from all beneficiaries. The combination of difficulty in excluding non-paying beneficiaries along with the low cost of serving extra users often has led to government provision of these "public goods."[1]

"Alienation" or Transferral of Property. Ordinary goods have the quality of being easily "alienated" or transferred in exchange for value, either in kind or for money. A seller can describe the goods to a prospective buyer in considerable detail without having parted with the object of primary value. Information poses a logical conundrum, however, because to the extent that one has information *about* the product, one already *has* the product itself. Hence, an information seller is often guarded about what he reveals, and a buyer may not be sure of what he is getting.

Depletion. The act of consuming an ordinary good depletes or uses it up; it does not last indefinitely. Information itself, however, can never wear out, despite the usage it may receive. It is subject to the danger of obsolescence, as with ordinary goods, but the obsolescence results from the passage of time, changes in events, and the development of new information. Information's *value* may depreciate, however, even if the information itself does not.

Division. Ordinary goods have well-defined units; information, however, sometimes has poorly-defined units. For example, it is often unclear to a buyer how many ideas a typical unit, such as an article or book, will contain.

Inefficiencies in the Production and Distribution of Information

Economic theory has shown that having prices equal to marginal costs results in maximum economic efficiency. (When a firm is producing a certain level of output, the increase in cost associated with producing one more unit is the marginal cost. This is important because it indicates to society the resources needed to change the level of output.) However, there are limits to the possibility of having prices equal to marginal costs. These limits are caused by economies of scale, difficulties in excluding non-payers, and other factors generally classified as leading to "market failures." Scale economies are a problem because marginal cost pricing leads to the firm's operation at a loss (because marginal cost is below average cost). Excluding people who do not pay for goods and services from their benefits is costly. Because the resources used to collect payments (the transaction costs) can be large, either consumers have to pay more or firms receive less than the price that covers production costs.[2]

Costliness of Producing Information. Many information goods and services are produced by firms with significant economies of scale, because information generally has the attributes of being non-depletable, inalienable, and indivisible. In addition, there are often difficulties in exclusion as described above. But information is costly to produce because of the amount of resources used, for often it is packaged and provided in many different forms. For these reasons, non-profit organizations (such as professional societies) and governmental organizations, as well as profit-making firms, provide a wide variety of information goods and services.

Several factors related to market structure and pricing help to determine whether the production and distribution of information occurs efficiently. In particular, there are (1) economies of scale and of scope, and the impact of technological change on these; (2) the importance of the possible entry into markets of new information firms, and barriers to that entry; and (3) the antitrust statutes and their impact on information industries.

Economies of Scale and Scope

The concept of economies of scale is important to understand the relative efficiency of various numbers of firms in a particular market. The concept of economies of scale, loosely defined, is based on decreasing average unit costs with increasing levels of output; in other words, there is a lower average unit cost of producing goods as the quantity of goods produced increases.[3] Most firms do not have constant average unit costs over their entire range of output of products or services. Rather, there are some points in the production process where average costs decline and others where they increase. It becomes important to determine where in this production process scale economies exist, and to compare their level to the level of consumer demand. This comparison provides an idea of the number of firms that can profitably serve a given market, and of the size that those firms should be.

A pertinent example comes from daily newspaper publishing, although dailies do not comprise an industry in the usual sense (because most do not compete with one another but are generally sold in separate markets). Newspapers have high set-up costs and low costs associated with the production of each copy printed. As a result, the vast majority of daily newspapers have no competing daily newspaper published in the same city.[4]

"Natural Monopoly." The source of the economies of scale may be either the presence of considerable set-up (or fixed) costs, as in the newspaper example, or the existence of decreasing unit costs, or both. The existence of strong scale economies, resulting in the lowest average costs at levels of output that are high relative to the market, is often called "natural monopoly." Traditional examples include local gas and electricity distribution firms and local telephone companies. As a result of the efficiency that can be gained by single firm operation and concomitant threat of monopoly, the standard policy in the U.S. has been to classify these firms as public utilities and to regulate them.[5]

The range of outputs at which scale economies exist can be an important factor in determining the structure of any particular market. However, the situation is more complex than appears in this analysis, since most firms produce more than one product. Frequently, it is less expensive to produce two (or more) goods together than to produce them separately. Savings from these joint productions are called economies of scope.[6] As with economies of scale, information distribution lends itself to economies of scope.

Conditions for Economies of Scope. Economies of scope can arise from either the presence of joint, inseparable costs in the production process or from savings from joint production, such as the utilization of by-products, or both. Information, because it can be packaged in so many ways, is often produced or distributed under conditions of economies of scope.

In many instances, a single firm may be actually or potentially capable of providing similar yet distinct goods and services. The crucial question is whether such a firm, by internal economies, can provide a pair or a range of products more cheaply than can two or more firms acting separately. An integrated firm will naturally tend to be larger and more powerful, and perhaps more efficient, so that the advantage in cost savings may be a mixed one. One could look to see if costs are lower or higher because of the joint provision of related but different goods and services in:

- Intra-state toll telephone calls and inter-state long distance calls;
- Switched voice and data communications services;
- Postal services and telecommunications services;
- Long-distance telephone lines for public usage and dedicated lines for the Federal Government;
- Telephone service and cable television service to homes and businesses (narrow-band and broad-band transmission); and
- The publishing of scientific journals and abstracts (either by the same publisher or by different publishers).

Combined Economies of Scale and Scope. At times the concepts of economies of scale and of scope are intertwined and difficult to separate. Route extension questions, whether for airlines or communications firms, are examples. Similarly, the question of whether it costs producers less to have one large computer accessing system making numerous bibliographic data bases available to users, rather than several systems each providing one data base, is a question of both scale and scope. For example, the average costs of a typical computer-based bibliographic data retrieval system may be declining over the entire range of output, indicating pervasive scale economies. To have this system fully utilized it might be advisable to provide additional data bases to its users. As a result, the average cost of using any one data base on this system will depend on the levels of usage of the other data bases.

This interdependence of costs is an important feature of economies of scope. In the strict sense, average costs of any one product or service are not defined. More loosely, average unit costs of any output depend on the level of output of that good or service *and* on the levels of output of all the other goods and services produced by the firm.[7]

Effects of Information Technologies. Information technologies may determine both the presence or absence of economies of scale and scope and the degree of those economies. As a result, technological change can have any of the following effects of different magnitude and quality; they can:

(1) Reenforce the position of the dominant firm(s);

(2) Lower entry barriers and increase potential competition;

(3) Lead to a redrawing of market boundaries and competition between firms thought to be in traditionally disparate industries; and

(4) Result in new products that do not clearly fall into any one existing market.

Defining Competition of New Products. Practical examples indicate that it is important to define how new products compete with existing ones if we want to make conscious policies about encouraging or discouraging competition. The archetypical case may be the invention of the telephone, which was originally seen as either a frill or an improvement upon the telegraph. The growth of telephonic communications led to consideration of the telephone industry as a separate market from telegraph, to several levels of regulation as a monopoly, and to a number of antitrust cases. With the growth of data transmission, formerly separate markets are merging. The distinction between telephony and telegraphy is now less clear, as is the difference between communications and computer services. But the firms providing these services remain subject to established traditions of market regulation. The question of how to introduce competition in this merging market of communications and computer services has been plaguing the FCC for a decade, and has resulted in two computer inquiry factfinding and rulemaking proceedings.

Similarly, there are now significant possibilities for substitution between computer-based and hard-copy versions of several data bases. As a result, there are often tie-in sales and discriminatory prices. Various examples are the pricing of the data bases available on both Lockheed's DIALOG and the Orbit System of Systems Development Corporation (SDC). Off-line prints of records from the various Predicasts, Inc. files (via DIALOG) are 50 cents each to non-subscribers to the printed versions, and less to subscribers. Access to the American Petroleum Institute's (API's) APILIT and APIPAT data bases (via Orbit) are $65 per hour and 11 cents per off-line citation for API subscribers, and $85 per hour and 20 cents per citation for non-subscribers.

Unfortunately, uncertainty about the future prevents asserting that technology eventually will eliminate the need for regulatory structure, which was established to ensure widely available telecommunications services. And even if, for example, the future competition between AT&T, Satellite Business Systems (SBS), and Xerox in data transmission would end today's AT&T partial domestic monopoly, the magnitude of distortions to the market resulting from years of fostering regulated monopoly might be great enough to warrant some sort of continued regulation during a transition. A possible compromise might be to find a way to encourage market entry, and hence competition, at the earliest possible time in the development of a new technology or service. The bills introduced in the past sessions of Congress to revise all or part of the Communications Act of 1934, while differing in other respects, all anticipate a less regulated, more competitive telecommunications industry in the future.

Entry Issues—Structural and Pricing Barriers

Industries may have only a few firms because of the presence of economies of scale and scope discussed above or because of barriers to or restrictions on entry. These barriers to wider marketing generally fall into one of five classes:

(1) "Absolute" cost advantages;

(2) Unavailability of major resources because of uniqueness, geography, patents, etc;

(3) Lack of competition because of low pricing;

(4) Market restrictions caused by the advantages of scale economies; and

(5) Government regulatory restrictions that exclude additional firms from certain markets.

Each of these types of barriers in the information and telecommunications industries tends to limit the diversity of information services available to consumers.

Regulation and Scale Economies as Barriers

Regulations of the Federal Communications Commission have, at various times, had the effect of restricting entry into the telephone interconnect market, the specialized telecommunications common carrier market, cable television markets, and so on. In addition to the considerations raised in the section on scale economies above, there may be barriers to entry from a firm's need to reach a minimum or critical size before its costs are low enough to compete effectively with existing firms. This is probably the reason why there is no fourth commercial television network at this time. The new network could not get the necessary VHF station affiliates to give it a viewer base with sufficient national advertising revenues. Hence, it would not be able to purchase high-price network-level programming.[8]

Absolute Cost Advantages and Unavailability of Major Resources

The cost advantages of the existing firms might, however, be "absolute," or not related to the volume of output. If there are specialized resources required or if exclusive contracts exist, the potential entrant may not have the ability to produce at cost levels as low as that of the established firm or even to produce at all. The existence of patent rights is one example of the factors that can lead to the reduced availability of key resources.

Pricing to Avoid Competition

Firms which generally have the ability to maintain prices above long-run average costs, and as a result, are able to earn profits above the levels in competitive industries, may wield some degree of market power. These profits can be used to cover losses or below-normal profits in certain product lines through cross-subsidization. The firm might wish to incur these losses or reduced profits to restrict the entry or growth of potential competitors, and may engage in predatory pricing (holding prices below costs) in order to achieve this objective. It may also hold prices below the monopoly price, but above cost. This is often called limit pricing.

Predatory pricing, if discovered and proved, has been consistently judged to violate the antitrust laws.[9] However, limit pricing has both beneficial and harmful aspects. The existing monopoly firm keeps prices at a lower level and hence can benefit consumers. IBM, for example, allegedly kept competitors out of the digital computer market by using its high profits on certain products to support its low profits on other types of computers sold in markets where its competitors were likely to be very successful.[10] However, limit pricing has been attacked in the courts.[11]

Questions about "Limit Pricing." The questions of documenting the existence of limit pricing, and of assessing the beneficial or harmful consequences that result, have not been resolved and are still under study. Clearly, pricing to meet or better the competition in a multi-product firm is not a simple matter for either legal or economic policy if further information about the impact on consumers and industry of such pricing is lacking.

Often firms subject to rate of return regulation also operate in more than one market, and may use their regulated status in one market to limit competition in another. If there is a mixture of competitive and noncompetitive markets, it is possible that a pricing policy with aspects of cross-subsidization and predatory or limit pricing will emerge. A noteworthy implication is that the firms operating in oligopolistic second markets, that is markets with a limited number of clearly identifiable competitors, may have an advantage over competing firms. The regulated firm can "afford" to take long run losses in these second markets while competing firms cannot.[12]

Impacts of Regulations

These pricing and cross-subsidy concerns are directly related to the issue of entry into regulated markets. In regulated industries, such as telecommunications, it is not uncommon for the regulatory agency to control entry and exit in the markets under its authority. Removing this decision from the decentralized working of the marketplace may lead to several inefficiencies, which are described below.

- First, certain markets may not be served, or products or services supplied, if the existing firm knows that others cannot enter. For example, AT&T might decide to offer single-line telephones with hold and intercom features, and Western Union telegraph-assured delivery, if it were to face potential competition from possible market entrants that would supply these services.
- Second, if entry is allowed in only one market, the regulated firm may reduce prices in that market so that it is able to achieve a competitive advantage. This conduct has been alleged in past competition between Telex and TWX and in point-to-point data transmission.[13]
- Third, if the established firm is not permitted to reduce prices in response to entry of other firms, the new entrants will generally choose to enter the most profitable market or markets and refrain from entering the less profitable ones. In information-related industries this "cream skimming" can erode the overall profitability of the multi-market regulated firm and threaten universal service. For example, AT&T alleges that decisions by the Federal Communications Commission, starting with the *Carterfone* case in 1968, have created such a situation.[14]
- Finally, inefficient firms may be precluded from leaving a market, or otherwise efficient firms may be barred from reducing service to markets that no longer are able to support that level of service. Telegram service by Western Union is an example of the latter situation.

Antitrust Considerations

Antitrust policies, as embodied primarily in interpretations of the Sherman and Clayton Acts and the amendments to them,[15] have a significant impact on how the market distributes information and information services. These laws prohibit certain forms of business behavior, and address industry structure from two vantage points. The Sherman Act (Section 2) makes it illegal to monopolize trade, and the Clayton Act (Section 7) makes it illegal to acquire a competing corporation if the effect "may be substantially to lessen competition or tend to create a monopoly."

The antitrust laws allow the government to bring both criminal and civil cases, and civil actions to be filed by injured competitors or customers. Frequently, the same firms will be defendants in a series of private and governmental actions. The recent cases against IBM and Xerox are examples.

Market Boundaries. In practice, the application of the antitrust laws has often revolved around the question of the appropriate definition of the markets. The major legal tests are the line of commerce (roughly defined by the degree of cross-elasticity of demand) and the geographic market.[16] The prohibitions against merger have been more strictly applied than those against "monopolizing." Section 2 of the Sherman Act, and its interpretations have had a checkered history. In the 1920's it was held that mere size was no offense—unlawful conduct and the exercise of monopoly power were required for a finding of guilt.[17] In the *Alcoa*[18] and *Griffith Theater*[19] cases of the 1940's, this doctrine was changed: "monopoly power, whether lawfully or unlawfully acquired, may itself constitute an evil and stand condemned under Section 2 even though it remains unexercised."[20]

Significant Antitrust Cases. The ruling definition may depend on the outcome of several cases of the 1960 to 1980 period. These cases are particularly interesting because several involve major firms that provide information-related goods and services. The government's antitrust cases against AT&T and IBM are currently underway, and there has been a consent decree (an out-of-court settlement reached between plaintiff and defendant) filed in the case against Xerox.[21] Also, technological change may redraw industry and market boundaries so that all three are competitors in the same markets long before all the cases are decided.

However, it is possible that a future market structure with giants such as AT&T, IBM, and Xerox will not be truly competitive. Other industries have seen the emergence of "shared monopolies"—markets in which price competition is suppressed. Despite investigations into two alleged shared monopolies, the breakfast cereal[22] and detergent industries, neither the Antitrust Division nor the FTC has been able to prosecute these cases successfully. If this were to happen in the information industries, existing policy tools to provide for competition may prove deficient.

A clear trend in the history of U.S. enforcement of those antitrust provisions relating to market structure can be seen in the fact that the courts have found it easier to deal with horizontal integration than with vertical, and conglomerate mergers and expansion have posed the greatest legal and logical problems. Several experts have argued that vertical mergers should be beyond the reach of the law.[23] There is now a view that the appropriate solution is to weigh the efficiency gains from vertical integration against any efficiency loss from increased market power.[24]

Market Conduct. In addition to the legal attacks directly on monopoly structures and on mergers, the antitrust laws have been used as the basis for cases seeking to bar certain forms of market conduct and restrictive practices. These restrictive marketing practices include collusion, exclusion, and price discrimination. For example, the case of *Associated Press (AP) v. United States*[25] illustrates the relationship between business practices and market structure in one phase of the news gathering and distribution process. The AP is a membership organization which collects and distributes news, obtained both by employees of the AP and of the member newspapers. The trial court held that "the By-Laws (of the AP) unlawfully restricted admission to AP membership, and violated the Sherman Act insofar as the By-Laws' provision clothed a member with powers to impose or dispense with conditions upon the admission of his business competitor (to the association)."[26]

This finding weakened the principle that property rights can exist in news. In an earlier case, *International News Service v. Associated Press,*[27] the Supreme Court had held that the AP could prevent publication of its dispatches by the rival news service. In *AP v. United States* the judgment that the AP must admit competing newspapers could lessen the incentive of the individual members to furnish news to the association, because they would also be furnishing it to their competitors. Similarly, the news furnished to the newspapers by the AP is worth less to any one newspaper than when the AP had exclusive rights to this news in its market.[28] The antitrust laws are used in this case to balance the incentives to produce information and the monopoly power that arises from its exclusive use in a manner similar to application of copyright and patent laws.

Other Developments in Antitrust Law

In addition to *AP v. United States* and the recent complaints against AT&T, IBM, and Xerox, there have been other antitrust actions that directly affect information industries. Two of these—the American Society of Composers, Authors, and Publishers (ASCAP) case[29] and the cases against newspaper joint publishing companies[30]—illustrate interesting trends in the development of antitrust law: the use of judicial decrees to establish standards of reasonable conduct (similar to those in regulated industries), and specific legislative exemptions to the antitrust laws.

Effects of ASCAP Consent Decree. The ASCAP consent decree illustrates judicial regulation of an information industry. ASCAP is a performance right society; it licenses and collects royalties for public performance of copyrighted musical compositions. ASCAP is one of three such societies operating in the United States, and it collects the most revenues of the three. All of ASCAP's licenses are basically blanket licenses which allow the licensee to use the entire repertoire of ASCAP any number of times in exchange for an annual payment. In the case of broadcasters, a fixed percentage of the licensee's revenues is required in order to receive a license. This plan to charge broadcasters differing amounts according to the level of their revenues is obviously a form of price discrimination. It has been permitted to continue, but in the case of disputes about the reasonableness of the fee, the parties may apply to the federal district court for a hearing.

Another provision of the ASCAP consent decree is a restriction on vertical integration. ASCAP is prohibited from representing the right of any author other than that of performance. Also, following the precedent of the AP case, ASCAP is required to admit any composer whose work is published, and any publisher who meets minimum standards of conduct. Many of the facets of the internal operations of ASCAP are subject to the provisions of the decree and to review by federal court.

Newspaper Joint Publishing Firms. The Newspaper Preservation Act illustrates the legislated partial antitrust exemption for certain information industries; namely, for companies that have been formed to combine the advertising and circulation departments of competing newspapers in the same city, while the editorial departments remain separate. These joint publishing companies now exist in twenty-two cities. The Antitrust Division of the Justice Department attacked several of these combinations during the 1960's. The grounds for the complaints were the loss of competition in the newspaper advertising markets, the reduction in competition in the advertising market overall, and the possible harmful effects on the number and variety of editorial opinions, columns, and features that were available to the readers.

Bills were introduced in the 90th and 91st Congresses to grant partial exemption from the antitrust statutes for these joint newspaper publishing agreements.[31] In its current form, the "Newspaper Preservation Act" makes legal the existing joint publishing agreements which were organized before enactment of the statute, and allows the Attorney General to exempt future combinations or agreements of a similar nature from the antitrust laws.[32]

SECTION TWO

Universal Service and the Availability of Information

The distribution of information among potential users is highly dependent on the price (calculated as time and effort as well as money) that the user has to pay for the information. This section examines one specific distributional policy—universal service—as an example of how the interaction of market structure, pricing, and government policies affects the availability of information. More general equity and other distributional concerns are also examined.

The Requirements and Costs of Universal Service

Of the various principles on which to base a set of prices and allocations, the principle of universal service is one of the most widely used. Although simple in appearance, this principle may in fact be quite complex. When the provision of a service is considered to be in the public interest, public utility commissions and other agencies have sought to use their power over prices to promote the widespread availability of the service. For example, the policies of rate averaging and universal service have been applied to the 93 percent of American households having telephones.

Rational promotion of universal service requires answers to at least three questions:

(1) How broad must the service be? Is 100 percent coverage required, or is 90 percent or 95 percent considered to be a satisfactory level of service?

(2) Does the price to certain groups need to be below marginal or average costs to encourage them to purchase the service?

(3) If so, how far below costs, and from what source can revenues be raised to balance the shortfall that results from requiring universal service?

If some groups of users have to pay more for services in order to make the services accessible to other groups of users, there is an additional source of inefficiency. Whether the revenue comes from taxes on another commodity or from general funds, there will be both market distortions and policy choices to be made.

Pricing to Achieve Universal Service

There are at least two frequently used approaches to pricing to achieve universal service. These approaches are price discrimination and cross-subsidization.

Price Discrimination.[33] This discussion of price discrimination is limited to those cases in which different customers or users (or classes of customers or users) are charged different prices even though the cost of providing them with the goods or services is the same. For this type of price discrimination to occur and be profitable there are three necessary conditions:

(1) There must be two or more easily identifiable classes of customers;

(2) The responsiveness to price changes must not be the same in each group; and

(3) Resale between the groups of customers must either not be possible or must be relatively expensive.

There are many examples of this type of price discrimination in the markets for information products and services. One example is the pricing of scholarly journals, for which libraries and institutions often are charged more than individuals.[34] Another pricing plan that results in subscribers paying different prices is that of the American Petroleum Institute. Corporate membership charges, including subscription fees, are proportional to the domestic output of the oil company members—the larger the firm, the higher the charge.

Journals are not the only information products subject to price discrimination. The musical performance rights societies, the American Society of Composers, Authors and Publishers (ASCAP), and Broadcast Music, Inc. (BMI), have standard blanket license contracts with broadcasting stations. Since the fees charged are a fixed percentage of the station's gross revenues, these organizations in effect discriminate in pricing according to the size of the listening audience.

Multipart Pricing Schemes. Sometimes, however, the discriminatory nature of the pricing is hidden in a multipart pricing scheme which has both a flat fee and an additional charge based on use of the service. In the complaints filed in its antitrust cases against IBM and Xerox, the Justice Department alleged that these firms' rental and pricing schedules were discriminatory.[35] The typical Xerox rental contract would be for a fixed monthly fee for a limited range of copies per month and per copy charge for each copy over the maximum. This type of multipart pricing is profitable and has been shown to approximate the more usual form of price discrimination.[36] Even by allowing the customer to choose among a limited selection of these multipart plans, the profitability of such pricing schemes is not completely eliminated.[37]

Although price discrimination is often condemned, it can be beneficial to many groups who might otherwise have to pay a single high price. Under certain circumstances, not uncommon in the information markets, price discrimination *can* lead to the benefit of all groups. This mutual benefit is characteristic in those situations in which scale economies exist. However, it is not true that all parties always benefit from price discrimination in the sale of information products. Nevertheless, because of the existence of scale economies, benefit to all parties may result.

Cross-Subsidy. When some consumers are charged more than the single price and some less, cross-subsidy comes into play. In many markets a single price is charged, even though the costs of providing the goods or services to all consumers are not the same. This single price may arise because of public policy, administrative convenience, or marketing strategy. First class postage, which costs the same regardless of distance, provides an obvious example of the first case. Similarly, rates for computer communications via GTE-TELENET's packet-switched network are also distance-independent. It is difficult, however, to know whether the costs are actually unrelated to distance or whether this represents part of TELENET's strategy for marketing the service.

Broadly speaking, a cross-subsidy exists when some consumers bear more than their share of the costs of providing some good or service, and other consumers bear less. Cross-subsidies raise policy issues on three levels; there may be debate about their appropriateness, their effectiveness, and their existence. The first two issues of appropriateness and effectiveness are linked, because a demonstration of cross-subsidies' relative inefficiency in redistributing income may initiate the question of the appropriateness of their existence.

Inefficiency of Cross-Subsidies. Economists have made a demonstration of the inefficiency that is known to exist in cross-subsidies. Any implicit subsidy, whether embedded in a tariff or otherwise implemented, has a cash value. But the beneficiary of any such subsidy would be better off if he had a cash grant for the value of the subsidy to spend as he saw fit. Furthermore, explicit subsidies are open to public scrutiny, and their burden falls on taxpayers in general, rather than on consumers of the particular good or service in question. A more efficient alternative to the telephone company's cross-subsidization of rural services, which is embedded in current tariffs, would be outright cash grants to the rural subscribers.

Cross-subsidies may be further questioned on the ground that regulatory authorities should confine themselves to ensuring safety levels and service quality, and preventing the exercise and abuse of monopoly power. In order to discharge such duties, it is not necessary for any public service or public utility commission to issue a rate structure which embodies a cross-subsidy. In so doing, such a commission makes policy on redistribution of income among citizens, a step usually reserved for legislative action.

Difficulty in Defining Cross-Subsidy. In considering the third-level policy issue regarding cross-subsidies, there is some question about the actual meaning of the term. Cross-subsidies are well defined only in the following two situations:

(a) In an otherwise self-supporting organization, if the additional revenues brought in by a particular service do not cover that service's costs, cross-subsidization results.

(b) Conversely, if the additional revenues brought in by a particular service exceed the cost of providing the service by itself, and other services fail to cover their costs as in (a), this service cross-subsidizes the others.

Unfortunately, the actual situation is usually more complex. Many services may bring in additional revenues greater than their additional costs, but less than the costs of providing the service on a stand-alone basis. This situation is particularly possible in the short run, due to the existence of fixed costs in existing capital plant, and joint costs when the same facilities contribute to the provision of multiple services. The telephone provides the fullest example of these problems, with MTS, WATS, and local service. In such a situation the actual existence and direction of a cross-subsidy are not clear.

Because of the problems in calculating fully distributed costs or any "true allocation" among services and customers of the costs associated with many information products and services, it is often impossible to detect and measure cross-subsidies.[38]

Equity and Related Distributional Concerns

Our notion of "fairness" and "equity" in achieving access to information is often related to the distribution of income and wealth. For example, it is public policy that information products or services, such as postal and telephonic communication and consumer protection information, are important enough to be available at low cost. Moreover, these concepts of "fairness" and "equity" are often related to the costs of providing the goods or services. These concepts also may be related to the concept of efficiency, because economic efficiency requires each purchaser to pay at least the marginal cost of the goods or services he receives.

Thus far, the discussion of universal information distribution has focused on the problem of under what circumstances subsidies should exist, without deciding whether or not it is appropriate to subsidize certain groups of users or consumers. The rest of this discussion is about ways to distribute information equitably.

Distribution of Goods Generally. Ordinarily, public policy towards distribution of goods concerns monetary benefits. The premise behind the policy of distribution is that the unadjusted results of a market economy, allowing an unequal distribution of wealth, are unacceptable on a social basis. Often the government's response to the problem of unequal distribution of wealth comes in the form of simple cash benefits—transfer payments to individuals. But sometimes the benefits take the form of vouchers for a certain critical commodity, such as food stamps. Sometimes the effort to redistribute wealth takes the form of provision of goods or services in kind. Social services of various descriptions available only to persons whose income falls below a certain level or who are over a certain age provide examples of this approach. Most of the time, however, such benefits are interchangeable in some way with cash, because the benefits or services could be purchased by the poor if only they had enough money. Some commentators in social welfare have suggested that statutory entitlements to such government-funded-and-provided services constitute, in effect, a new form of property, and some case law supports this proposition.[39]

Political Currency. Another currency, and one whose distribution is of paramount concern, is the political currency: one person, one vote. Our political system guards the separation of political from monetary currency by making it a crime to bribe voters. Such bribes do sometimes occur, but are considered to subvert the purpose of the universal franchise, namely, to provide an equal distribution of political power despite inequalities in distribution of economic power.

Information as a Currency. It remains to be seen whether information can ever develop into a currency like dollars or votes. For one thing, information has no obvious units. Secondly, there are no ethical or political rules that can serve as guidelines for the convertibility of this currency into either dollars or votes. However, some have expressed concerns that the change in the composition of the economy toward the production of information goods and services will exaggerate rather than diminish the gulf between the wealthy and powerful and the poor and weak. Moreover, the increased need for cognitive skills could leave the uneducated even farther behind. It is certainly plausible, but not yet demonstrated, that patterns of information production and consumption will prove largely congruent with those for other kinds of goods and services. But it is not yet apparent to whose relative advantage in the political system the changes we are now observing will ultimately accrue.

Distribution of Information

The most problematic aspect of equitable distribution of information is the inappropriateness and inapplicability of traditional government controls on such a fluid and bountiful resource. Because information is not scarce, the government cannot extract it by taxation and redistribute it through benefits, the traditional government activities related to the collection of money, an asset characterized by its scarcity. Nor would a means test, a device to determine need as a factor in the decision to supply or withhold information, appear workable as the basis of a government information supply system. For example, how could a government information center ever refuse to supply a patron with information because he or she already knows too much?

These practical problems involved in controlling the flow of information in no way reduce the legitimacy of the goal of achieving equitable information distribution to all members of society. With the advent of telecommunications-based information services, whose use demands a basic level of cognitive sophistication, the fear is that the educationally disadvantaged may lack the intellectual prerequisites to avail themselves of the new services. However, it is difficult to determine the best cure for a future information gap derived from inequality of income, when such a gap is still theoretical in nature. Ideally, any information gap could ultimately be corrected by equalizing the educational standards for both rich and poor through earlier and greater emphasis on basic cognitive skills in primary and secondary education. In the final analysis, because of the peculiar qualities of information, which make any speculation about its distribution hypothetical, the new array of information services may very well make the affluent even more knowledgeable, without having any measurable impact on the poor at all.

Policies to Increase Production Incentive. Ordinarily, policy measures to promote fairness of distribution have negative side effects on incentives to produce, generating a tradeoff between equity and efficiency. However, it is not clear that policies promoting fair distribution will create a negative effect on production of information products, unless the copyright law is liberalized to permit a wider range of exempted liberties in terms of reprinting or reusing the copyright material without having to honor the copyright prohibition of duplication. The real question is whether additional exemptions in the copyright law, which reduce the income for the producer of the information, will reduce the incentive to produce information products. Some exemptions from copyright liability already exist—specifically, the right to reprint in Braille for the blind, to tape record copyrighted material for the deaf, or to recast the material in another format (i.e., film or television) for the otherwise handicapped (for example, those who are paralyzed).[40]

Exemptions from Copyright Liability. In addition, the copyright law already contains substantial exemptions for educational institutions, including libraries, permitting the reprinting of information for educational purposes. Because of their scope, these exemptions presumably have an effect on the incentives to produce information. The exemptions are so broad and general that one cannot interpret them as having the special remedial or egalitarian focus of the more narrowly construed exemptions for the handicapped; but rather, like the exemptions for fair use[41] of copyrighted works (discussed in Chapter Five), the exemptions for educational institutions apply to so many people under so many circumstances, that one can regard them primarily as an egalitarian measure.

Efficiency in Distribution. Although more commonly applied to the production of goods and services, the concept of efficiency also applies to consumption of goods and services. Inefficiency in production exists if more output could be achieved with a given level of input or resources. In consumption of goods and services there are several possible measures of economic efficiency, but there is one widely-used criterion that avoids making value judgments among consumers. According to this standard, goods and services are efficiently distributed if it is impossible to make anyone better off without making someone else worse off. In legal terms, all consumers must be "whole."

Clearly, most social changes, even ones considered highly beneficial, do not meet this very restrictive criterion. By insisting that no one be hurt, however, this standard of economic efficiency defines an unambiguous social improvement. Efficiency means, then, the making of all such improvements. Almost all policies, whatever their benefits, will make some people worse off in some way, and in such instances, the net gain anticipated from a broader comparison of costs and benefits must be weighed against the harm to whatever groups or interests are adversely affected. The changes in telephone rate structures anticipated as part of the revision of the Communications Act of 1934 provides a good example. The rates charged for long-distance and local residential service would be adjusted downward and upward, respectively, to reflect more closely their costs. While this change would be beneficial on balance, some residential subscribers, especially in rural areas, might have to pay more than they do now for the same service.

Administered Markets and the Role of the Government in the Marketplace

It is often difficult to understand and analyze the interactions in markets where there is a single, powerful participant (either a buyer or seller) who does not follow the standard profit-maximizing rules. The classic example of a market in which the rules of profit-making do not apply is the economic relationship between the Department of Defense and the manufacturers of large weapons systems. Since the procurement of weapons systems is often done on a cost-plus or partial incentive basis, the usual market mechanisms are suppressed. A corresponding effect is obtained when the government is the sole provider of a good or service.[42]

There are several examples of problems raised for the market by government operations effectively replacing market mechanisms in the information industries. These actions may be both beneficial to and harmful for the effective distribution of information. One problem is the government's role in setting standards for information distribution through its choices of how to distribute its own information. The history of government purchases and production of microfiche is a case in point. There are many competing formats and standards often making it difficult to read fiche produced in one format on a reading device made according to another format. The problem is heightened if one needs "blow-backs"—hard copy produced from the fiche. To a great extent, there is a *de facto* standard because of the government policy to purchase and use primarily one format for the large volume of government information distributed on fiche. While this brings with it major benefits, there are also drawbacks in that this format is not the best for all purposes, and often leads to incompatability between government and non-government materials. One example in the area of medical records has had profound effects. The differing formats increase the cost and time required to duplicate records for use by health professionals. Furthermore, teaching and research hospitals often need two sets of microfiche equipment—one for medical records and one for research reports. If the government were to achieve Brooks Act standards of consistent procurement of ADP equipment, the results might be similar.

Government Dominance of Marketplace. Another market problem arises when the government is the sole producer of certain categories of information. For example, the government has had the primary interest in the field of atomic energy, and consequently in the development of information about this area. The overwhelming government involvement has effectively precluded entry by commercial publishers or data base providers. The emergence of a government/private sector coordinated energy-related bibliographic data base, the Battelle Energy Information Center is very recent. It is clear that decisions concerning the government allocations of R&D funding among disciplines and specialities have a major impact on the fields in which it is profitable to produce data bases, bibliographic reference systems, and various secondary information systems.

There is also a market problem that occurs when the government must invest heavily in equipment required to collect information which then proves to be of limited usefulness in implementing programs. The problem seems particularly acute when the information is not helpful for programs that are of government origin. One of the most intriguing examples of the limited usefulness of some government-supplied information is found in the LANDSAT (formerly ERTS) program.

Limited Use of Some Federal Data. LANDSAT provides data via satellite photographs that can be applied for several purposes, the best known of which is crop forecasting. However, the design and implementation of the program included the early, basic recognition that such satellite data could be assimilated into information beneficial to only a few direct users rather than to many.[43] Thus, the land-use information provided by satellite has proved to be principally useful only to the Department of Agriculture's Crop Forecasting Service and to the large grain companies. Two reasons for this narrow spectrum of the information's applicability are the major investments necessary to make use of the information, and the additional non-satellite information on plantings, weather, etc., which the Department of Agriculture must supply in order for the satellite data to become completely useful. To say there is a functioning market for this information would greatly stretch the definition of "market." Although people do buy LANDSAT photographs and maps, it is usually for their artistic value or technical novelty, not for their informational content.

Government "Make or Buy" Decisions

The current policy concerning government production or purchasing of information, as contained in OMB Circular A-76, is to rely on the private sector for the goods and services needed by the Federal Government whenever possible. There are certain obvious types of information that most people would agree should be produced and disseminated internally within the government. Foreign intelligence, military secrets, and the census are examples. In most cases when a firm can make a profit, and when there are no substantial "externalities," (effects on others who are not parties to the immediate economic transaction), production by the private sector is appropriate.

But there are situations that do not fall into either of the two categories described above. There are two general situations in which government subvention or regulation of an information market may be desirable:

(a) Situations in which a private profit cannot be made, but the benefits to all members of the society are greater than the costs. In these cases the government should consider providing or subsidizing the provision of the information.

(b) Situations in which there is the likelihood of substantial harm to individuals not directly involved in the transaction (for example, from loss of privacy or from pollution). In these cases the government should consider regulating information transactions and their resulting harmful effects.

Unfortunately, in actual practice, there are many situations in which the need for government subvention or regulation of an information market is not either simple or clear-cut. For example, on one hand, the Department of Commerce's Worldwide Information and Trade System (WITS) has been criticized by private sector industry groups, who feel that the government is usurping the role of the private sector in providing trade information. On the other hand, consumer groups have frequently asked for increased government activity in providing and disseminating consumer information.

Full Cost Recovery and Equity

Many organizations that provide information are required by their charters or by their management to break even, either in the short run or on average over a period of years. OMB Circular A-25 sets forth such a policy for the Federal Executive Branch: "When a service (or privilege) provides special benefits to an identifiable recipient above and beyond those which accrue to the public at large, a charge should be imposed to recover the full cost to the Federal Government of rendering that service."[44] Among federal departments and agencies there has been only an inconsistent effort to break even by charging the public for special services rendered.[45] However, the important consideration here is not the inconsistent application of any "full cost recovery" requirement, but the arbitrary and inefficient nature of the requirement itself. Although the purpose of the "full cost recovery" requirement is to achieve equity, its success at this is usually accidental.

The following economic propositions relate to the problem of the government receiving "full cost recovery" for special benefits dispensed to individuals:

(a) The apparent simplicity and concreteness of the full-cost calculation is entirely misleading; the policy is in fact ambiguous, and must rely ultimately on arbitrary and economically indefensible accounting conventions.

(b) Full-cost pricing can be damaging to the interests of all users of the supplier's services. In other words, by reducing full-cost prices, the supplier may *reduce* the prices of all of its services, without any loss in total revenue because of an increase in the total volume of sales.

(c) The other side of the preceding proposition is that full-cost pricing will generally hold down the revenues of the supplier, as well as often preventing an increase in those revenues that could be obtained without any price increases.[46]

Difficulties of Full-Cost Pricing. The difficulties in the application of any full-cost pricing rule come from the existence of joint costs in any multi-product organization, as well as the disregard of demand elasticities.[47] The complexity of information on demand, and the patterns of costs needed in order to create full-cost recovery policies, are described in the following statement:

> . . . if there are economies of scale or other patterns of responsiveness of costs to volume of sales, demand data will also be needed if the prices selected are actually to end up covering costs. Demand information cannot be dispensed with, for in calculating the pertinent cost the management must be able to ascertain what volume of sales can be expected at the full cost. If a calculation of full costs is based on cost data for the past and, for example, it seems to require a sharp increase in price, the resulting fall in quantity sold may lead to a loss of scale economies, and the alleged full-cost price will in fact fail to produce revenues equal to costs as it is intended to do.[48]

Pricing of GPO Publications. The formula used by the Government Printing Office (GPO) for pricing its publications, based on a provision of the 1895 Federal Printing Law, exemplifies the application of full-cost recovery:

> The price at which additional copies of government publications are offered for sale to the public by the Superintendent of Documents shall be based on the cost as determined by the Public Printer plus 50 percent.[49]

Over the years, successive Public Printers have developed different formulas to determine sales prices for GPO publications. The term "cost" has been subject to a variety of interpretations, but has never been construed to mean only the marginal expenses—paper, ink, binding, labor—of running off extra copies. Some part of GPO overhead not solely related to the physical production and handling of extra copies has always been included. However, in certain instances the Superintendent of Documents has altered these prices to make use of previous sales history and understanding of the market.[50] This practice implicitly recognizes the arbitrariness and shortcomings of the full cost plus 50 percent formula as well as the importance of demand information.

Price Reduction Can Bring Profit Increase. A somewhat surprising finding is that *reductions* in the price charged from the "full cost" price can lead to increased profits (or decreased losses) for the supplier, as well as benefits for the consumers. This can occur when the demand is sufficiently elastic; that is, when the percentage change in the quantity demanded is greater than the percentage change in price. For example, recent reductions in the price of overseas telephone calls may lead to increases in revenues from this service for the Bell System, because there will be greater use of the system. If the costs increase (because of the increased sales) at a slower rate than the revenues, the profit will increase as a result.

Government Procurement Policy. Furthermore, agencies appear to be operating under somewhat inconsistent instructions with respect to the scope of government enterprise and the pricing of its output. The government's basic procurement policy, set forth in OMB Circular A-76, requires agencies to buy their goods and services from private firms unless they can produce them more cheaply themselves. This policy is designed to prevent the entry of government into enterprises which can be conducted better by the private sector. Yet Circular A-25, by requiring full-cost recovery, not only permits but encourages government to provide self-supporting services. This guidance conflicts with the basic premises that the government should run primarily by appropriated funds, and that if an activity can be self-sustaining, it should be conducted in the private, rather than the public sector.

Government Support of Input Fees

The government makes available funds for information-providing activities when it supports the imposition of input fees of various types (e.g., page charges levied by academic journals,[51] or charges levied on federal agencies by the Government Printing Office for its printing notices in the *Federal Register*). These policies of government funding for information-providing activities are often either vague or contradictory. For example, because the government wishes to encourage the dissemination of research findings, it provides funding to research grantees to pay for the page charges imposed by the journals that will eventually publish the research results. However, the government will only approve expenditures for page charges if the publisher is a non-profit organization or professional society. As most research is government-funded, this inhibits profit-making publishers from publishing articles about research findings.[52] It is arguable that page charges are an implicit subsidy for the publishers of scholarly journals, and that they may be necessary to ensure that research results get published at all. But the current approach limits the potential for disseminating research findings.

Patent Policy Provides Research Incentive

By granting inventors of new products or new processes exclusive rights to their inventions for a limited period of time, the government seeks to provide incentives to promote research and discovery. But, in effect, these patents grant monopolies, and may lead to increased prices and reduced outputs. The lifetime of the patent and the relationship between the patent laws and the antitrust statutes are determined by government policy.

This interplay of the antitrust laws and the patent system has major implications for information policy, since the patent system itself is a means of encouraging the production and dissemination of new products and processes, and the information about them. Resolution of these conflicting objectives may require a legislative rather than a judicial solution to achieve predictability and uniformity.

Patent Licensing Policies. The American system of patent law is unique in that it does not contain any compulsory licensing provisions.[53] The patent laws allow holders of patents to authorize others to produce the products, or to utilize the processes that are the subject of the patents on either an exclusive or non-exclusive basis. This decision concerning exclusive or non-exclusive production is usually based on the licensor's view as to which strategy will lead to the highest royalty payments, although the exclusive license, with its restrictions on the diffusion of the new product or process, may not best serve the public interest.

As a result of occasional misuse of patents which lead only to personal gain against the public interest, the courts have used the antitrust statutes to limit the exercise of patent rights in several circumstances. For example, the courts, following the *Line Material* case,[54] have prohibited the stipulation of prices in patent license agreements, whenever patents from different owners are combined in the production of a good. Similarly, the Sherman Act has been used to prohibit exclusionary or market-sharing arrangements that result from competing firms combining their patents via cross-licensing or pooling.

Economics of Diversity of Information

Although at first glance it might seem strange to consider diversity of information carried by information services an economic issue, there is a long tradition of economic analysis relating market structure to diversity, particularly regarding broadcast programming.[55] Analysis of this economic issue includes consideration of the role of market structure in affecting program diversity, the role of the government in fostering diversity, the inter-relationship between ownership patterns and diversity, and the degree of product differentiation in information markets.

Market Structure and Diversity

In the field of broadcasting, in which advertising is the major source of revenue, the size of the audience is of paramount importance. The station or network management seeks those types of programs which are likely to attract the largest possible audiences. If the number of radio or television stations serving a particular area is limited, the natural result of the competition among them is a "lowest common denominator" programming, characterized by a remarkable degree of sameness.

Large Audiences Lure Broadcasters. The following hypothetical case illustrates this problem. The entire audience for a certain medium (e.g., television) can be divided into two groups—those who prefer light entertainment and those who prefer public affairs programming. The potential entertainment audience is four times the size of the potential public affairs audience. As a result of this pattern of preferences, if there are three stations, all would prefer to offer entertainment only, and to reach the 80 percent majority audience, thus obtaining an approximate 27 percent share of the total audience (1/3 of 80 percent), rather than the 20 percent share who would watch if public affairs were broadcast.

Obtaining Public Affairs Programming. Carrying this example further, for the three hypothetical television stations there are several ways of obtaining public affairs programming. One is to require the broadcaster to devote some part of his schedule to public affairs programs. The other is to increase the number of available stations to four or five, thereby promoting the possibility that one station would provide programming to the minority audience that prefers public affairs. This smaller audience represents a fraction of the market that with the additional numbers of stations, becomes equal to or larger than that fraction of the market which would be obtained by carrying entertainment programs.

In addition to increasing the number of stations, there are other structural remedies that would increase the diversity of television programming. Among these is the politically unlikely plan of requiring common ownership of all commercial television stations in each market. Common ownership would allow—and encourage—wider program choices, as the potential audience losses from carrying public affairs would only be losses to another channel owned by the same entity, rather than to a competitor. The broadcaster would then seek to carry public affairs in many or all time-slots on at least one channel, so as not to lose that 20 percent of the potential audience.

Market Structure and Program Mixture. The hypothetical examples of the effects of changing the number of stations or of introducing local monopolies are obviously over-simplified, but they do illustrate the relationship between the structure of the market—number of firms and pattern of ownership—and the mixture of programming carried by the mass media. Because the broadcast medium utilizes the electromagnetic spectrum, the Federal Government, especially the FCC, has been crucial in determining the number of local broadcasters, the likelihood and viability of competition from alternative technologies such as cable television (which does not use spectrum), and so on. Often the choice presented to the government regulator is some form of direct regulation, on one hand, or a more indirect approach, such as increasing the number of firms, or changing the coverage of existing broadcasters, on the other. This offers a choice between direct intervention in the market by the regulator, or a more subtle, and possibly more effective, changing of the economic environment.

Ownership and Diversity

The role of owners in the substantive decisions of firms has been the subject of several economic analyses.[56] In the mass communications areas, the question of the impact of ownership on diversity has arisen because of a hypothesized link between ownership and content. Both the FCC in the U.S. and the Canadian Radio, Television and Telecommunications Commission (CRTC) have looked at programming in considering license applications, renewals, and transfers. In addition, the increasing trend toward chain ownership of daily newspapers has raised a similar question in that sphere.

Linkage of Ownership and Content. Actually, the relationship between ownership and content is tenuous and unclear. There have been several studies of possible links between the two in many of the mass media.[57] One study concluded that "the problem of group ownership reflects the danger of generalization . . . There is a large variance of programming performance among individual group-owners as well as between individual groups and non-groups."[58]

This question of the linkage between ownership and content continues to be raised in several areas. The FCC has adopted a set of regulations prohibiting future mergers or acquisitions of newspapers and television stations in the same city.[59] However, these regulations "grandfather" all existing combinations of this sort, permitting those previously in existence to continue, except in cases in which the television station is the sole station in the city. Other aspects of the ownership/content linkage question are: the desirability of having non-media corporations controlling media outlets (as was raised by the American Express Company's proposed take-over of McGraw-Hill) and the debate over the consequence of the growth of newspaper chains.

Effect of Ownership on Advertising Rates. Despite the tenuousness of the relationship between ownership and content, there is nevertheless evidence to verify the effects on the rates charged to advertisers as the result of both newspaper joint publishing agreements and of cross-media ownership of newspapers and television stations in the same city. In both cases, the rates were found to be higher in the presence of such arrangements than in comparable situations without them.[60]

If advertisements provide consumers with information about prices, new products, etc., and seek to convince customers to buy a specific product, then any institutional arrangement that raises advertising rates would seem to be directly opposed to the public interest. Thus, even without the basic belief that advertising is beneficial, as higher advertising rates are eventually passed on in the form of higher prices, there is a public policy concern because of the higher prices that result from news media combinations.

Effect of Ownership on Programming. An additional line of inquiry has focused on the examination of types and quantities of programs broadcast or cablecast by large group owners of television stations or cable systems, and comparisons have been made between programming by large group owners and the program choices of "independent" owners. A recent comparison of VHF network-affiliated television stations in the fifty largest markets shows that there is virtually no difference in the amount of local programming done by the two types of owners.[61] A second study found that cable systems owned by the twenty largest multiple-system operators, on average, devoted approximately one more channel to locally-originated or imported programming than did equivalent independent cable operators.[62]

Again, these examples of the impact of ownership on diversity reveal the public policy issues and choices rather than indicate which specific policy in regard to ownership should be adopted. The next section considers another type of diversity—that which is related to the questions about variety and quality of products or services.

Product Differentiation

In analyzing the structure of a specific industry it is, of course, important to know how narrowly or broadly to draw the perimeter. Indeed, information lends itself to product differentiation. There are many information and communication services which may duplicate one another, or may compete directly with one another. For example, the New Jersey Board of Public Utilities classifies cable television systems as either "classical" or "competitive." The competitive system is one which operates within the Grade A contours of at least three network broadcast signals.[63]

Similarly, first class mail, telephone calls, telegrams, mailgrams, and other assorted forms of interpersonal communication may all be substitutes for each other; if so, the firms and organizations that provide them would be part of the same industry. However, the degree of substitution which is possible among many of these forms of interpersonal communications is inexact. Each service is sufficiently different from the others to offer diverse opportunities to customers in sending and receiving messages. They may be so different, in fact, that they are considered as entirely separate markets.

"Tailoring" versus Duplication of Services. Another important aspect of product differentiation, particularly in the information industries, is the fine difference between precise "tailoring" of products or services, and duplication of these products or services. For example, one might obtain a single item from a data set (e.g., the volume of U.S. exports in 1972), from a periodical (e.g., the *Survey of Current Business*), from an annually published compendium (e.g., the *Economic Report of the President*), or from any of a number of on-line data bases (including those provided by the TROLL, Data Resources Incorporated (D.R.I.), and Chase Econometrics Systems). Each of these embodiments of the same datum has different attributes that make it relatively more or less useful to different users.

Similar situations arise in many information dissemination activities. To give some examples, the Educational Resources Information Center (ERIC) data base is available through several on-line computer systems, in frequently updated computer tapes, and in printed form. On-line medical information (the MEDLINE program) is available both from the National Library of Medicine and from several secondary providers. Government supported Information Analysis Centers (IAC's) often provide current awareness surveys, handbooks, and information on demand to a variety of users. To some extent these information dissemination activities compete with one another; the demand for any one product or service affects the demand for the others.[64]

Question of Duplication. There is a difficult decision to make concerning whether these slight differences in packaging, form, and availability of information are useful distinctions, or whether they are needless, costly duplications. Underlying the difficulty in ascertaining the need for different types of information dissemination is the problem posed by government's suppression of the market for government-generated information. An alleged oversupply of information as a result of a lack of coordination among agencies is a major subject in the recent report by the General Accounting Office on government activity in the provision of scientific and technical information.[65] Unfortunately, there are no simple answers to solve the problem of making government-generated information available in a form that meets every demand, but recent research in this area sheds some light on the problem of interrelated demands.[66]

Differentiation according to Product Quality. Various levels of product quality constitute another type of product differentiation. In both regulated monopolies and regulated competitive industries there is often a reduction in the available variety and quality of goods or services.[67] This reduction can lead to the necessity of having to settle for both the wrong quality and the wrong price, an undesirable outcome for those groups that might desire either higher or lower quality goods or services. There are examples to be found in telephone service. Low income groups or individuals who make few outgoing calls may wish party line or even coin box service, but these services are not available for residences in many areas. Similarly, firms and institutions might desire sophisticated call routing equipment to provide for the efficient usage of

WATS and regular long distance lines, but the specific equipment may not be available from the local telephone operating company.

Separation of Content and Conduit

In certain circumstances separating ownership of a conduit for transmitting information from ownership of the means of providing the information itself may afford a variety of opportunities for increasing the availability of information. Among these increased opportunities for information are the possibility of more and more diversity of expression over conduits, and increased competition for provision of information and information services in the marketplace.

A common carrier is an individual or firm that undertakes to carry persons, goods, or messages for all persons who choose to employ him or it.[68] For example, telephone companies and the U.S. Postal Service are common carriers. Often a specific industry can operate in either a common carrier or a non-common carrier mode. The transmitting entity can be responsible for the sorts of information it will carry, as is currently the case in broadcasting. Or the owner of the means of transmission can carry messages for all who can pay for the services and not be liable for the effects of the content, as is the case in telephone and mail services.

Cable TV at Regulation Crossroads. Cable television is an example of an industry at the crossroads between the broadcast and telephone models. The FCC regulations governing cable television systems are patterned after the television broadcast model, rather than the telephone model. That is, a cable operator has discretion over selection of programming, although it is circumscribed in some instances by law and regulation.[69] The alternative approach to governing cable television systems is to use a common carrier model in which the cable system would offer access to the transmission equipment for all who are willing and able to pay the specified rates. Proponents of full common carrier status for cable systems argue that, while neither approach is free from disadvantages, there would be rather different incentives at work, and these incentives would probably lead to more diverse programming with the common carrier approach.[70] (See Table One). On the other hand, it has been argued that the separation of content and conduit in cable television would increase the financial uncertainty of cable operators and programmers, and therefore would make cable a less viable competitor with the traditional over-the-air broadcasters.[71]

TABLE ONE

Comparison of Common Carrier and
Current Non-Common Carrier Models
of Cable Regulation

Performance Criterion	**Common Carrier**	**Current Model**
Economic	Few allocation problems	Misallocations likely
Access	Limited only by capacity and regulated price	Severely limited because of editorial responsibility
Responsibility	Originator of message responsible	Cable operator: legally responsible
Incentives to	Cable operator: weak incentives because of rate of return regulation	Cable operator: strong incentives
	Other programmers: strong because of guaranteed access	Other programmers: weak because no guaranteed access

Source: Barton, et al., 1973 (See note no. 70)

Vertical Integration and Standardization

Because information products and services can be produced in a variety of forms, and because this information may serve as components or "inputs" for additional products and services of the same firm, there is often a high degree of vertical integration in the information industries. An obvious example is the publisher who produces a primary journal, an abstracts journal, an annual index, and cumulative indices from the same information products. In addition, this same organization might use the title, author, and citation information from each article in the production of a citation index. Many of the indices may also be made available in other formats, whether machine-readable, photo-reduced, or otherwise.

The same publisher also might consider owning and operating his own computer-based bibliographic retrieval system, or might sell or lease with indexing information tapes to an independent system. If the contractual terms include payments that are usage-sensitive (priced according to the amount of usage), many economists and lawyers would argue that there is a degree of vertical integration, even if the system is separately owned and operated. This notion was considered in the FCC's "Network Inquiry."[72]

Factors Favoring Vertical Integration. Vertical integration is often used to replace contractual or open-market supplier-customer relationships in the information industries for one or more of the following reasons:

(1) The costs of internalizing operations are less expensive than trading on the market;

(2) There is a reduction in risk in not relying on the market;

(3) Vertical integration may provide organizations with the opprotunity to engage in price discrimination;

(4) Vertical integration may enable organizations to substitute internalized inputs for others purchased on the market.[73]

The Case of the Journal Publishers. To return to the case of the journal publisher, it might be more expensive for one publisher to provide title, author, and citation information to a separate publisher if the format required were different from that used internally. However, at least one firm, the Institute for Scientific Information (ISI), produces this information for itself from the various journals to which it subscribes. ISI then publishes the abstracts and indices in its "Current Contents" and other serials. In this case the benefits are from large-scale operation rather than vertical integration.

It has been argued that unhampered information flows can be best promoted if the limits to vertical integration that apply in other industries are relaxed or eliminated in information disseminating industries. In opposition to this argument, some believe that standardization and compatibility requirements could replace the benefits of vertical integration,[74] and allow for increased competition. An exemplary case is that of home computers. In this case there are three effective interface standards, each incompatible with the others. Systems based on the Intel 8080 chip use different busses than either the Radio Shack or Heath/Zenith systems. As a result, peripherals for one system often cannot be used with the others.

The Case of the Video Cassette Recorder. Another similar example is found in the video cassette recorder field. There are at least two major systems (Beta, used by Sony, and VHS, employed by Panasonic and Quasar), each employing incompatible technologies (that is, tapes made on one cannot be played back on the other). The same problem exists in the video disc area; MCA/Philips discs will not be playable on RCA sets, and vice versa. The potential concern is that as the video disc becomes an inexpensive, space-efficient storage medium for information, it may be unduly expensive to delay its adoption while potential users wait out the "shake-down" phase to see which of the competing systems survive. There are several possible solutions to this dilemma:

(1) Legislative or regulatory standards (e.g., color TV);

(2) Agreements on standards of a voluntary industry standards association such as the American National Standards Institute (ANSI);

(3) Required compatibility (such as a requirement that all telephone terminal equipment be "plug-compatible" and harmless to the telephone network);

(4) Encouragement of one system via franchised monopoly or large government purchases; or

(5) Allowing market forces to operate freely (with or without an antitrust exemption), possibly leading to the creation of a dominant, vertically integrated firm (the "IBM" of video discs), which would provide both hardware and software. (The recently announced joint venture between IBM and MCA, called Disco Vision, indicates that this fifth possibility is a strong one in certain markets.)

Technological and Market Solutions. From this list, we see that the concern about standards and compatibility and the issue of vertical integration are interrelated. However, it is not always necessary to have government involvement in order to establish standards and create compatibility. Standardization or compatibility problems may lead to only a small increase in costs, or the market may resolve the problems. The push-button telephones from manufacturers other than Western Electric that do not require "Touch-Tone" lines are an example of technology and the market resolving the problem.

Standards setting is not a panacea. It is possible for an agency, whether voluntary or governmental, to choose the wrong standard. For example, many experts believe that the U.S. television and color television standards have led to an inefficient use of the spectrum and to picture quality that is inferior to that in countries with other standards.

Conclusion

Through the use of economic analysis and with the help of many examples from both the traditional telecommunications and broadcast industries, and the growing information industries, we have illustrated the close linkages between the economics of market structure and pricing and the development of an information policy.

These concerns also illustrate what information markets tend to look like, and the problems with making information and information services widely available through traditional economic approaches. Suggested remedies and new approaches to information dissemination problems must be conducted with full cognizance of the complexity of creating economic policy concerning the distribution of information.

Notes

[1] The zero (or very low) cost of serving one extra user makes any price other than a marginal-cost one undesirable. Difficulties in excluding non-paying third-party beneficiaries make most of the undesirable higher pricing arrangements impossible as a practical matter. See J.G. Head, "Public Goods and Public Policy," *Public Finance* 17 (1962): 197. A transatlantic telephone cable, for example, has a very low marginal cost. Such cable costs several hundred million dollars to install, but very little to maintain and operate. However, the telephone company thoroughly controls access to it, and prices transatlantic calls according to its own dictates.

[2] In the case of either scale economies or benefits from non-payers the problem of having prices equal to marginal costs cannot generally be solved by the standard prescription of government subsidies (e.g.,in the case of highways or lighthouses). The reason is that the government must somehow raise the funds for production and dissemination of information, which is generally accomplished through taxation. If an item had a before-tax price equal to marginal cost, its after-tax price will be greater than marginal cost.

[3] Average unit costs are the total costs incurred divided by the level of output.

[4] See J.N. Rosse, "Daily Newspapers, Monopolistic Competition, and Economies of Scale," *American Economics Review* 57 (May 1967): 522-23. The roles of newspaper mergers and syndications will be treated later in this chapter.

[5] Pervasive scale economies are but one of the causes of market failure. Technological interdependencies and institutional disparities are other possible causes. A classic example is the existence of large, pressurized pools of oil under land that has several non-cooperating owners. For a complete survey of the various types of market failures, see F.M. Bator, "The Anatomy of a Market Failure," *Quarterly Journal of Economics* 72 (August 1958): 351-379.

[6] See for example: W. J. Baumol, "On the Proper Cost Test for Natural Monopoly in a Multi-Product Industry," *American Economics Review* 67 (December 1977): 809-22, and J.C. Panzar and R.D. Willig, "Economies of Scale in Multi-Output Production," *Quarterly Journal of Economics* 91 (August 1977): 481.

[7] For an application of this analysis, see W.J. Baumol and Y.M. Braunstein, "Empirical Study of Scale Economies and Production Complementarities: The Case of Journal Publication," *Journal of Political Economics* 85 (October 1977): 1037- 1048.

[8] Although most metropolitan areas do have UHF stations, the nature of their operation (frequency, power, etc.) is such that their coverage areas and potential audiences are smaller than those of VHF stations.

[9] See the Clayton Act, Sections 12 and 13 (15 *United States Code Annotated*, 1973), and e.g., *Puerto Rico American Tobacco Co. v. American Tobacco Co.*, 30 F. 2d 234 (2d Cir. 1929).

[10] For more on this, see F. Scherer, *Industrial Market Structure and Economic Performance* (Chicago: Rand McNally, 1970), pp. 216-234.

[11] *U.S. v. International Business Machines*, Civil No. 69 CIV. 200 (S.D.N.Y., filed January 17, 1969), Par. 20c.

[12] H.A. Averch and L.L. Johnson, "Behavior of the Firm Under Regulatory Constraint," *American Economics Review* 52 (December 1962): 1059. See their article for assessment of practices in the telephone and telegraph markets.

[13] *Ibid.*

[14] Federal Communications Commission Decision, *In the Matter of the Use of the Carterfone Device in Message Toll Service*, 13 FCC 2d 420 (1968), 14 FCC 2d 571 (1968).

[15] 15 *United States Code Annotated*, Section 107 (1977), and 15 *United States Code Annotated*, Sections 12ff. respectively. The principal amendments are the Robinson-Patman Act, 15 *United States Code Annotated* Section 13 (1936), and the *Celler-Kefauver Act*, 15 *United States Code Annotated*, Section 18 (1977). Usually the *Federal Trade Commission Act*, 15 *United States Code Annotated*, Sections 41ff. (1973) is also included in this list.

[16] C. Wilcox and W.G. Shepherd, *Public Policies Toward Business*, 5th ed., (Homewood, Ill.: R. D. Irwin, 1975), p. 198.

[17] *U.S. v. U.S. Steel Corp.*, 251 U.S. 417 (1920); and *U.S. v. International Harvester Co.*, 174 U.S. 693 (1927).

[18] *U.S. v. Aluminum Co. of America*, 148 F. 2d 416 (1945).

[19] *U.S. v. Griffith*, 334 U.S. 100 (1948).

[20] *Ibid.*, p. 107.

[21] In addition, there are numerous private antitrust cases that have been filed against AT&T, IBM, and Xerox.

[22] *FTC v. Kellogg* et al., Docket No. 8883 (April 1972).

[23] For an excellent statement of this see R.H. Bork, *Vertical Integration and the Sherman Act: The Legal History of an Economic Misconception*, 22 University of Chicago Law Review 159-201 (1954). See Douglas Needham, *The Economics of Industry Structure, Conduct and Performance* (London: MacMillan, St. Martin's Press, 1977), for several counter-arguments.

[24] O.E. Williamson, "Economies as an Antitrust Defense: The Welfare Tradeoffs," *American Economics Review* 58 (March 1968): 18-36.

[25] *Associated Press v. U.S.*, 326 U.S. 1 (1945).

[26] *Ibid.*

[27] *International News Service v. AP*, 248 U.S. 215 (1918).

[28] For more on this, see R.A. Posner, *Antitrust* (St. Paul, Minn.: West Publishing Co., 1976), pp. 571-572.

[29] *U.S. v. American Society of Composers, Authors and Publishers* (S.D.N.Y., 1950)

[30] *Citizens Publishing Co. v. U.S.*, 394 U.S. 131 (1969).

[31] U.S., Congress, Senate, Antitrust, Monopoly and Business Rights Subcommittee of the Committee on the Judiciary, *The Failing Newspaper Act: Hearings on S. 1312*, 94th Cong., 1976; *Hearings on The Failing Newspaper Act*, 90th Cong., 1st Sess., 1967-68; and *The Newspaper Preservation Act: Hearings on S. 1520*, 91st Cong., 1969.

[32] *Newspaper Preservation Act*, 15 *United States Code Annotated*, Section 1801 (1978).

[33] This term is used in the technical and not the pejorative sense.

[34] If the publisher is a professional society providing certification or other services to its members, it may be more expensive to provide membership and a subscription to an individual even though the price is less.

[35] *U.S. v. International Business Machines Corp.*, Civil No. 69 CIV. 200 (S.D.N.Y., filed January 17, 1969) and *FTC v. Xerox Corp.*, Docket No. 8909 (FTC 1971), consent filed.

[36] Walter Oi, "A Disneyland Dilemma: "Two-Part Tariffs for a Mickey Mouse Monopoly," *Quarterly Journal of Economics* 85 (February 1971): 77-96.

[37] W. Baumol, et al, *Manual of Pricing and Cost Determination for Organizations Engaged in Dissemination of Knowledge: New York University Report* to the National Science Foundation (Mimeograph), December 1977, Ch. 5. For the simpler single-part discriminatory pricing, the profit maximizing rule is to set the prices to be inversely proportional to the elasticities of demand.

[38] For more on this problem see G. Faulhaber, "Cross-Subsidization: Pricing in Public Enterprises," *American Economics Review* 65 (September 1975): 966-77; and "Cross-Subsidization in Public Enterprise Pricing," Submitted for FCC Docket No. 20003 (1977).

[39] Charles Reich, *The New Property*, 73 Yale Law Journal 733-787 (1977 and 1964).

[40] 17 *United States Code Annotated*, Section 110(2)(C)(ii), (8) and (9) (1977).

[41] 17 *United States Code Annotated*, Section 107 (1977) provides that use of a copyrighted work, including reproduction, for purposes of criticism, comment, news reporting, teaching, scholarship and research, does not infringe upon a copyright, especially if the use is noncommercial, does not hurt the potential market for the work, or draws on a

small part of the work. Clearly, however, Congress did write the new copyright law with the needs and interests of some particular disadvantaged groups in mind, and presumably weighed these needs and interests against the value of providing incentives for producers.

[42] For a detailed look into many of these areas, see the essays in S. Melman, ed., *The War Economy of the United States* (New York: St. Martin's Press, 1971).

[43] An interesting study shows that this information can, in fact, lead to an increase in crop prices. See D. Bradford and H.H. Kelijian, "The Value of Information for Crop Forecasting with Bayesian Speculators: Theory and Empirical Results," ***Bell Journal of Economics*** 9 (Spring 1978): 123-144; and "The Value of Information for Forecasting in a Market System," ***Review of Economic Studies*** 44 (October 1977): 519-531.

[44] The legislative authority for this circular is 31 ***United States Code Annotated***, Section 483a (1979 & West Supp. 1980).

[45] Several interpretations and the resulting practices by personnel in various agencies are documented in National Cartographic Information Center, ***Report on Pricing of NCIC Information Products and Services***, prepared by D. King and N. Roderer of King Research, Inc. (U.S. Geological Survey), March 1978, Ch. 3. See U.S. General Accounting Office, Publication on ***Development of a National Make-or-Buy Strategy: Progress and Problems***, 25 September 1978. Logically, however, a change in federal cost recovery policy to recoup only marginal rather than full costs should be easier to administer and enforce. As currently written, A-25 has had to provide that "costs shall be determined or estimated from the best available records in the agency, and new cost accounting systems will not be established solely for this purpose."

[46] National Science Foundation, ***Manual of Pricing and Cost Determination for Organizations Engaged in Dissemination of Knowledge: New York University Report***, prepared by W. Baumol et al. (Mimeograph), December 1977, Ch. 5.

[47] This problem is not unique to information products. One classic example is in the operation and regulation of railroads; in that case the problem is in allocating joint costs to the various lines, and to the different categories of freight and passenger services.

[48] *Ibid*, p. 3.

[49] 44 *United States Code Annotated*, Section 1708 (1969 & West Supp. 1980).

[50] See U.S., Congress, House and Senate, Joint Committee on Printing, ***Report on Analysis and Evaluation of Selected Government Printing Office Operations***, prepared by Coopers and Lybrand (U.S. Government Printing Office), 1979, pp. 129-69.

[51] Page charges are fees, either mandatory or voluntary, that are levied by journals on the authors of the articles that they publish. In many cases they are defrayed by funds from the supporting grants.

[52] For more on this, see Y.M. Braunstein, "On Economic Rationale for Page and Submission Charges by Academic Journals," ***Journal of the American Society for Information Science***, 28 (November 1977): 355-8.

[53] A.D. Neale, ***The Antitrust Laws of the U.S.A.*** (Cambridge, Mass.: Cambridge University Press, 1970), p. 301.

[54] *U.S. v. Line Material Co.*, 333 U.S. 287 (1948).

[55] See P.O. Steiner, "Program Patterns and Preferences, and the Workability of Competition in Radio Broadcasting," ***Quarterly Journal of Economics*** 66 (May 1952): 194-223; and see B. Owen, ***The Economics of the Freedom of Expression*** (Lexington, Mass.: Lexington Books, 1974).

[56] See A.A. Berle and G. Means, ***The Modern Corporation and Private Property*** (New York: MacMillan, 1929). This was the first of several studies looking at various aspects of the private property question.

[57] For example, see W. Baer, et al., ***Concentration of Mass Media Ownership: Assessing the State of Current Knowledge*** (Santa Monica: Rand Corp., 1974); also see P.D. Baldridge, "Group and Non-Group Owner Programming: A Comparative Analysis," ***Journal of Broadcasting*** (Spring 1977); and see G. Rarick and B. Hartman, "The Effects of Competition on the Daily Newspaper's Content," ***Journalism Quarterly*** (Autumn 1966).

[58] Baldridge, p. 130.

[59] U.S., Federal Communications Commission, ***Second Report and Order, Multiple Ownership Docket 18110***, 60 FCC 2d 1046 (1975); Reconsideration denied, 53 FCC 2d 589 (1975).

[60] B.M. Owen, "Newspaper and Television Station Joint Ownership," ***Antitrust Bulletin*** 18 (Winter 1973): 787-807.

[61] Citizens Communications Center, ***Comments Submitted to the Federal Communications Commission: In the Matter of Amendment of Section 73.636(a)***, August 1978.

[62] K.K. Kalba and Y.M. Braunstein, ***The Impact of Firm Size and Subscriber Scale on Cable Television Services***, Mimeograph (Cambridge, Mass.: Kalba Bowen Assoc., 1978), pp. 32-44.

[63] New Jersey Board of Public Utilities, Docket No. 753C-6086 (31 January 1978), Proposed Rule 14:17-18(a)-(f). The FCC defines a Grade A contour as a television signal which 95 percent of the households in a given area can receive 75 percent of the time.

[64] See R.M. Mason and P.G. Sassone, "A Lower Bound Cost Benefit Model for Information Services," ***Information Processing and Management*** 14 (1978): 71-83.

[65] U.S., General Accounting Office, ***Better Information Management Policies Needed: A Study of Scientific and Technical Bibliographic Services***, (Report PSAD-79-62), 6 August 1979.

[66] Mason and Sassone, "A Lower Bound Cost Benefit Model" provides an example.

[67] L. White, "Quality, Competition and Regulation: Evidence from the Airline Industry," in R.E. Caves and M.J. Robert, eds., ***Regulating the Product: Quality and Variety*** (Cambridge, Mass.: Ballinger, 1975).

[68] This is adapted from ***Black's Law Dictionary***, 4th edition.

[69] U.S., Federal Communications Commission, ***First Report and Order***, 38 FCC 683 (1965); ***Second Report and Order***, 2 FCC 2d 725 (1966). These rules were upheld by the courts: *U.S. v. Southwestern Cable*, 392 U.S. 157 (1968); *U.S. v. Midwest Video*, 406 U.S. 649 (1972). There have been many recent changes to specific rules, but the underlying "model" still holds. For a complete discussion of the regulation of cable television, see U.S., Congress, Senate, Committee on Governmental Affairs, ***Cable Television—The Framework of Regulation: Study of Federal Regulation***, prepared by B. M. Owen, 95th Cong., 2nd Sess., December 1978, Appendix to vol. 6.

[70] Stanford University Program in Information Technology and Telecommunications, ***Report on Nondiscriminatory Access to Cable Television Channels***, prepared by J. H. Barton et al., (no. 2), March 1973.

[71] For more on cable television as a common carrier, see Sloan Commission on Cable Communications, ***Report on Common Carrier Access to Cable Communications: Regulations and Economic Issues***, prepared by L. Kestenbaum, March 1971; and see ***Separating Content from Conduit?*** Mimeograph (Cambridge, Mass.: Kalba Bowen Associates, 1977).

[72] Federal Communications Commission, ***Commercial Television Network Practices***, Docket No. 21049, 62 FCC 2d 548 (1977) and 47 CFR Part 73, FCC 78-736 (1978).

[73] For more on these see Douglas Needham, Ch. 8. There are additional reasons for regulated firms which fall into categories beyond the scope of this paper.

[74] It is also argued that premature standards, whether set by industry or government, can hamper innovation.

Chapter V

The Creation of Information: Property Rights and Subsidies

By David Y. Peyton

The Federal Government has had longstanding policies to encourage the creation and production of information. This chapter discusses and analyzes these information policies, including the establishment of private rights in intellectual property, direct government involvement in information creation, and government subsidies to private producers through research and development grants. Although these information policies often are implemented by laws or appropriations, their content is largely based upon economic factors which will be treated in this chapter.

Choosing among various policy alternatives can be difficult for federal policy-makers because available information generally is incomplete. Since each of the different approaches to the creation and production of information encourages information creation at a cost, choosing among them or mixing them raises additional policy questions. Take, for example, the choice between creating an information policy based on government subsidies of information versus the establishment of private rights in intellectual property, or a policy combining the two.

Policy Choices Concerning Information. The first choice of government subsidies of information entails federal funding, with federal control of both the content and distribution of what is produced. The second choice of an information policy, based on respect for private rights in intellectual property, encourages private creation of information free from government direction. But the system of payment of copyright royalties for private intellectual property inevitably limits information distribution to those who can pay royalty fees. The two policy choices embody conflicting goals in the creation and production of information that make a mixed system difficult to manage.

In addition, the application of new telecommunications and data processing technologies raises timely policy issues. New technologies have confounded the definitions of traditional categories of legal protection for information, and have made various kinds of information property rights almost unenforceable. In such an environment, producers of information may tend to rely on trade secret protection, or perhaps even forego otherwise advantageous projects. In order to promote information creation and to serve the goals of availability of and access to information, it thus becomes urgent to clarify information property rights.

Basic Policy Concepts

A fundamental American assumption is that the creation of information is essential for society to make effective technological, social, economic, and political choices. Thus, the United States is generally committed to policies that foster availability of information. The link between the First Amendment and the copyright clause of the Constitution is crucial. The First Amendment makes free speech an inalienable personal right; copyright creates a transferrable private property. The First Amendment allows a metaphorical marketplace of ideas, but the Copyright Act gives expression a chance to be commercially viable.

Despite the expansive scope of the Copyright Act, there are many instances when authors can assert property rights but do not, because their motivations are not pecuniary. However, public policy may be necessary in order to induce authors to create information which is socially desirable, when it is not intrinsically or financially rewarding enough to create for its own sake.

Policy of "Government Works." The public domain status of government publications or "government works," as the Copyright Act calls them, is also a basic policy. Unlike the copyright laws of most other countries, the U.S. law forbids the Federal Government from asserting an intellectual property right against its own citizens.[1] While this provision recognizes that taxpayers have already financed the creation of the information, it also reflects a kind of government accountability to the citizenry not necessarily assumed in other countries. Interestingly, the public domain policy for government documents contrasts with the Patent Act, which permits the government to own the rights in inventions of its scientists.

The views and conclusions contained in this chapter reflect those of the author, and should not be interpreted as necessarily representing the official policies or recommendations of the National Telecommunications and Information Administration, the U.S. Department of Commerce, or the U.S. Government.

Historical Background

The patent–copyright clause of the Constitution enunciates a policy encouraging the creation of information. The policy stated in the Constitution does not leave the production of information goods and services entirely to the devices of private producers, because to do so would result in the provision of an inadequate supply of information. As is currently the case, in 1787 there appeared to be only two basic options for government policy supporting the production of information goods, the use of public subsidy or the creation of private property rights. Delegates attending the Constitutional Convention debated the question, resolving it primarily in favor of the latter by granting Congress the power to confer intellectual property rights. According to Article I, section 8, clause 8 of the Constitution,

> The Congress shall have power . . . to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries . . .

First Copyright and Patent Acts. Congress passed the first copyright and patent acts in 1790. The copyright law had a practical or commercial orientation. It provided protection for maps and charts as well as books, but it excluded many works of fine arts, such as those in the fields of music, painting, printmaking, sculpture, and choreography, which are included today. The copyright law was created as a response to the invention of the printing press and the possibility of independent reprinting—creating copies of a published work without any financial benefit to the author. Before this advance in reprographic technology, there was no need for anything resembling copyright protection. The patent law, however, pertained only to mechanical devices, and later, to processes and compositions of matter. To receive a patent required disclosure of the invention in return for statutory protection. Hence, the law designed to promote industrial innovation (the "useful arts"), also produced a stream of information about new inventions, which would in turn help inventors develop additional devices.

Constitution Protects Intellectual Property. The patent-copyright clause of the Constitution, by setting forth a definite philosophy for congressional power to protect intellectual property, created a legal basis for its protection in the formulation of federal statutes, rather than simply basing the protection of intellectual property rights on the common law. Both in England and on the Continent patents and copyrights had an inauspicious origin in their entanglement with the twin evils of sixteenth-century royal favoritism and censorship. For example, the copyright held by the Stationer's Company amounted simply to a printing monopoly. Later, in the eighteenth century, natural-rights theorists defended patents and copyrights as property—a term with inherently positive connotations—rather than as monopoly, a term already acquiring negative associations. The evolution of common law jurisprudence in regard to intellectual property reflected the approach of natural-rights theorists, and American common law of misappropriation still embodies the notion that one should be able to enjoy and exploit the fruits of one's intellectual labor as a matter of inherent right.

The Constitution in no way counteracts the common law,[2] but it contains the explicit statement that statutorily-created property rights have to serve the stated purpose of promoting knowledge ("science") or industrial innovation, and cannot be ends in themselves. In linking the concept of copyright protection to the advancement of knowledge and innovations, the Constitution follows the philosophy embodied in the English Statute of Anne (1710), and provides a basis for copyright which has been validated by modern economic analysis.

Property Rights Statutes

Although the new Copyright Act (17 U.S.C.) has not entirely preempted state legislative authority in protection of copyrights, the new law has practically dominated the entire copyright field by enlarging the rights of authorship to include a range of diverse forms. In addition to conventional printed works and works of fine art, copyright law protects an individual's exclusive legal right to reproduce, publish, or sell photographs and film, mechanical drawings and blueprints, patterns for fabrics and tiles, sound recordings, and computer programs,[3] but excludes typeface designs or functional and utilitarian objects, whose esthetic and practical aspects are inseparable.[4] The new law applies to unpublished as well as published works, abolishing an earlier distinction between the two under the old law. Although the import of the law's provision regarding Federal Government preemption authority remains unclear, states are granted the power to create copyrights, with the provision that the rights so created are not equivalent to federally granted copyrights, and are not to be instigated by the same sorts of acts. There are five kinds of acts which activate federally granted copyrights: reproduction, distribution,[5] performance, display, or preparation of any sort of derivative work—adaptation, translation, (musical) arrangement, dramatization, sound recording, or film.

The copyright law is distinguished from either the patent law or state laws on trade secrecy, unfair competition, and misappropriation. The copyright law creates certain specified rights in the information products themselves,[6] while the patent law confers rights in applied devices, processes, and compositions of matter. Although the patent disclosure requirement generates a crucial and publicly available flow of information,[7] the patent owner can claim a copyright only in materials describing the subject of a patent. For patent law to permit the owner anything more would, of course, defeat the purpose of the disclosure requirement itself. If an owner elects to keep information secret, then he is protected under trade secrecy; but if he elects to publish the information, then he can claim only the rights or copyright of similar rights.[8]

Common Law of Intellectual Property

The common law of intellectual property is based on the concept of the right of an individual to enjoy the fruits of his labor, whereas federal copyright law is based on a constitutional purpose to promote knowledge. A significant example of the common law underlying information policy is trade secret law,[9] which enables a proprietor to guard commercial secrets by enforcing nondisclosure clauses in contracts with employees or licensees. "A trade secret may consist of any formula, pattern, device or compilation of information which is used in one's business, and which gives him an advantage over competitors who do not know or use it."[10]

Concept of Trade Secrecy. This broad concept of trade secrecy includes anything that can be patented or copyrighted and, interestingly, anything whose protection under traditional federal categories of property has been in doubt, such as micro-organisms and computer programs. Hence, the common law concept of trade secrecy may fill a vital gap until statutory law catches up with new technological developments. Although trade secrecy law favors proprietors in its breadth of coverage, it contains a strong legal drawback for the individual or firm attempting to guard a commercial secret. The proprietor has a remedy only against the first party to breach the contract by divulging a secret; once the secret is disclosed, the proprietor enjoys no further protection. In contrast to the statutory periods of protection for patent (17 years for an individual), and copyright (75 years for a firm), the length of protection under trade secret law can be highly unpredictable. Furthermore, the proprietor cannot do open, large-volume business that involves the transfer of trade secrets; the practice is inherently closed and restrictive.

Advantages of Trade Secrecy Laws. Legal commentators have primarily tended to view trade secrecy as forbidding ". . . the employment of *improper means* to procure the trade secret, rather than the mere copying or use,"[11] the latter being prohibited by copyright and patent, respectively. However, from an economic standpoint, the existence of trade secrecy law provides the proprietor with assurance that he can capitalize on the value of whatever he develops. For this reason, the concept of trade secrecy is distinguishable from the concept of proprietary information, which is generally considered to be a broader and weaker legal term; in addition, the concept of trade secrecy can be differentiated from information privacy rights, which pertain to individuals.[12]

In the course of its operations any business enterprise generates internal records in which it can claim a property right. However, the rationale for confidentiality of these business records is not based on the same premise as the rationale for trade secrecy. Trade secrecy law enables a business to profit from anything useful it has developed which lends the business an advantage over its competitors. Therefore, the need for protection of ordinary business records from disclosure is not as great as the need to protect specially developed knowledge, which confers a competitive advantage to the business which claims the need for trade secrecy.[13]

How Protective Do Property Rights Need to Be?

The discussion of information as a public good in the previous chapter explained the difficulties faced by private suppliers of information who are interested in making profits. Chapter Four also explained why property rights in information do not need to be as protected as property rights in tangible goods. Unlike the diminution of most products through use, increased use or consumption of particular information generally results in an *increase* in the information's social value. Generally, additional usage of the information by one person does not prevent anyone else from using it. This almost always remains the case, even if additional use involves the disclosure of a trade secret or a copyright infringement.[14] Of course, the proprietor may suffer a private loss, because the misappropriator has gained by wrongful discovery or infringement what he could and should have bought legally.

Intellectual versus Real Property Rights. Copyright infringers are those who choose not to make a legal purchase of wanted information. They generally consider the value of the copyrighted information to be less than the legal purchase price. However, the illegal activity does have some positive value to others as well, because through the infringement the information becomes more widely used and available. The copyright law generally recognizes the benefit of the information's usage to society in general, by making the infringer liable only for profits lost to the copyright owner, reimbursing the owner for any actual harm resulting from illegal appropriation of the copyrighted material.[15]

In contrast, violations of rights in tangible property can incur both criminal and civil liability, because these offenses deprive rightful owners of the use and enjoyment of their goods. Violations of rights in tangible property also generally result in a *reduction* in the value derived from the goods in question;[16] this is obviously the case in destruction of property, but perhaps less obviously, in theft. A typical example of the latter is found in the value reduction that occurs when a professional thief sells purloined property to a "fence" for less than the legal purchase price.

Because of the value reduction that occurs in cases of property destruction or theft, the law deters acts that violate personal or real property.[17] But since the law is not as protective of intellectual property, in the future there may be new, possibly quite unattractive, kinds of misappropriation of intellectual property. However, any new legal penalties or remedies should take account of the peculiar, public goods characteristics of information.

Direct Federal Subsidies

The Federal Government may pay directly for the development of information either from its own internal operations, or by contracts or grants to private firms or individuals. A governmental agency may itself develop information, in which case the tax revenues appropriated to run the program are similar to a subsidy. Outstanding examples of programs run on tax revenues include the census, the development of national economic statistics, such as the gross national product and the consumer price index, and the collection of weather data with the formulation of forecasts. Or, a federal agency may sponsor research or development under grant or contract. Some agencies have developed or sponsored the development of computer software which has subsequently become available to the public. One of the leading examples is the NASTRAN program, put out by the National Aeronautics and Space Administration, to do structural analysis. The Law Enforcement Assistance Administration has subsidized software for distribution to local police departments.

Subsidies of Computing Technology. In addition to subsidizing the development of information itself, the Federal Government has also subsidized the development of information processing equipment. To some extent, the American lead over foreign competitors in computing technology has resulted from deliberate decisions on the part of the Defense Department, in particular, to support the development of new computers. This machinery then frequently becomes commercially available.

Whether the Federal Government should continue such a policy in order to preserve American preeminence in the computer field, is a question to be resolved on grounds other than those presented in this chapter. A market for machinery of any type, whether information-handling or agricultural, does not have the structural problems of the market for information goods or services. Research and development in computing technology does, however, have implications for information policy.[18]

Indirect Federal Subsidies

Indirect subsidies can be created in various ways. Certain pricing structures may imply the indirect subsidization of one activity by another. For example, the price rural subscribers pay for telephone service, although it may be of lesser quality, reflects neither the total costs of providing service to remote areas, nor the full extent of the rural subscribers' willingness to pay. Instead, regulated rates for rural areas, based on notions of fairness and on the importance of telephones, do not differ much from the rates in urban areas, where it costs less to provide the service.

Page charges levied against authors of articles to be published in scientific and technical journals provide another example of indirect federal subsidies. Some journals, principally those published by learned societies, may charge the author a fixed amount per printed page as a precondition to publication. If the publisher meets conditions set by the Federal Coordinating Council for Science, Engineering and Technology (FCCSET), the author may treat the page charge as a cost of fulfilling his obligations under a government grant or contract.[19] The burden of the page charges then no longer falls on him, and the Federal Government in effect subsidizes the journal.

Regulation to Promote Broadcasting. The Federal Government may have indirectly subsidized the inception of commercial broadcasting by granting permission to use the electromagnetic spectrum without payment. In so doing, it allocated a public resource to profit-making activities without requiring any payment for it as a factor of production. In its early days, the viability of commercial broadcasting was shaky, and having to pay a fee for the use of that public property might have deterred some firms interested in broadcasting. In place of remuneration for broadcasting rights, the Federal Government has imposed certain "public trustee" obligations upon broadcasters under the Communications Act. Clearly, however, the original intent was to promote broadcasting through regulation.

Tax Laws Affect Economic Behavior. Various laws or rules of taxation may result in implicit subsidies, especially if laws or rules are exceptions to uniform taxation, and encourage certain kinds of economic behavior. An investment tax credit has this character, and certain depreciation rules may have the same result, if the schedule specified does not entirely coincide with the actual life of the equipment in question.

Conversely, tax laws or rules may also act as a disincentive to investment. For example, the standards advocated by the Financial Accounting Standards Board (FASB) have been widely interpreted as rules calling for computer software development costs to be "expensed," that is, treated as a cost falling entirely in a single year, rather than depreciated over several years. Although software typically has a very short lifespan—perhaps only three years on average—this method of accounting may have hindered investment in software. In deciding whether to pursue a particular project, a software developer would have to take into consideration that, while he would not receive the revenues until the future, he would have to bear the costs immediately. Only recently have FASB rules been reinterpreted to permit a case-by-case examination of whether some software development costs may be depreciated.[20]

The Choice between Copyrights and Subsidies

Copyrights and subsidies, the two basic mechanisms used to promote the production of information, pose interesting practical and philosophical policy choices. Frequently the government must choose between supporting private entrepreneurs, who are taking risks to produce products which may or may not sell, and taking similar risks itself by directly supporting grantees or contractors. Both the patent–copyright clause of the Constitution and, more recently, OMB Circular A-76,[21] support the basic policy that the Federal Government should rely on the private sector to produce information whenever possible.

Pro's and Con's of Copyright. The intention behind the creation of property rights policies was to encourage the production of information goods and services, and to provide remedies for inherent market defects. Under our decentralized system, individuals assess market opportunities and decide what information to produce. Since thousands upon thousands of people separately make such decisions, the aggregate fund of knowledge drawn upon in making those choices is quite broad.

The drawback in such a decentralized system, however, lies in the quantities of a particular information good provided, in whatever form. Private producers of information seeking to maximize their own profits will probably not provide copies or access for everyone willing to pay the extra cost of being served. In this regard, producers who have intellectual property rights thereby gain a measure of market power and hence some ability to control, rather than accept, price levels. Because a patent offers stronger protection of intellectual property than does a copyright, permitting less similarity of reproduction, patents sanction greater restrictions on information dissemination.

Copyright's greater latitude for similarity without infringement generates the problem of imitation. Once a certain work or sort of work has proved popular, other producers are likely to produce imitative works. On one hand, imitation means that the supply of works for which there is a known demand will increase and that there will be some competition among them.[22] On the other hand, imitation implies a weakened interest in developing truly innovative products, if it means bearing greater risks.

Pro's and Con's of Subsidy. These problems of supply and imitation can be lessened by means of public subsidy, which allows public officials to decide who will produce which products and in what quantity. Public officials can thus deliberately spread research money over a range of projects to avoid duplicative effort. Furthermore, government can price its provision of research products so as to achieve the best possible distribution, considering the costs of dissemination and the value to the recipients.

Tension between Subsidies and Property Rights. The problem with public subsidies is that government officials generally have less information than private individuals about what to produce.[23] Thus, there is a tradeoff between private provision of more diverse information goods and services in lower amounts protected by property rights, and government provision of less diverse goods and services in greater amounts. The property rights approach favors the dynamic aspect of the system— production for the *future*—while subsidies serve better to distribute *now* what is already available. But the tension between the two remains, as society tries to balance future needs with current ones.

The cost of creating information that is considered to be the product of research, experimentation, and thinking does not vary according to the number of people who use it; yet this cost must always be figured into decisions about the dissemination, pricing, and quantity of the information. The initial costs of editing and preparation for publication are high, with some additional costs incurred in serving additional users. From this distinction between the high start-up cost and low cost of additional output, an argument has developed in favor of government subsidy of research through grants or contracts, combined with reliance on copyright to provide an incentive or assurance for private publication of the results. The research itself can be thought of as providing benefits for society at large, a concept reenforcing the need for government subsidies. Individual copies of research reports or terminals, however, even if held in libraries, generally benefit only the individuals who use them.[24]

Significant Factors in Policy Choices. The choice to be made among copyrights, government subsidies, or a combined system of the two in determining an appropriate government policy to encourage information creation, clearly reflects the larger choices among free enterprise, a mixed, or a managed economy. This chapter has discussed the following significant factors to take into account when choosing an appropriate policy in any particular circumstance:

1. Current constitutional and statutory law,
2. Provision of information most responsive to user needs,
3. Provision of information to the broadest possible audience,
4. Preference for innovation over limitation,
5. Relative preference for current or future consumption of information, and
6. The difference between the cost of creating information and the cost of distributing it.

Efficiency as an Information Factor. An additional factor to consider in creating and distributing information is *efficiency*. This matter is difficult to address, because there is inadequate information concerning whether subsidies or protections of intellectual property produce greater quantities and quality of research products. Currently there is no way to estimate accurately the burden imposed on information consumers by exclusive intellectual property rights, or to quantify accurately the ultimate burden of indirect subsidies of information creation. Even the accounting of federal support for research and development—over $25 billion a year—does not include many information-producing activities. Furthermore, quantifying the benefits of research, however financed, presents serious problems. Choices between subsidies and property rights in promoting the production of information are generally made, then, in ignorance of their relative efficiency.

Mixing Property Rights and Subsidies

In an attempt to gain the advantages of both property rights and subsidies in the field of information production, current policy relies on a hybrid scheme to develop information and information-related products. Usually the government will subsidize research under grant or contract, and then rely on the private sector for dissemination or application of the results. But the coordination between these two approaches to information creation and distribution is an uneasy one and creates policy problems. The administration of both copyrights and patents provides good examples of the policy problems in a hybrid government—private sector system of stimulating and publishing research findings.

Enforceability of Copyrights

The longstanding arguments over photocopying practices have most often concerned the scientific and technical journal literature. Research reported in such journals often has been supported, directly or indirectly, by a government agency. Usually, a private publisher needing to recoup costs (and sometimes make a profit) has published the work and asserted a copyright in it. This issue concerning the extent and enforceability of such a copyright has presented a classic confrontation between the desire for wide and convenient provision of available knowledge, and the need to encourage private undertakings by providing adequate incentives. While the available evidence is incomplete, it appears that uncontrolled photocopying practices may be limiting the sale and contributing to the tight financial circumstances of some journals.[25]

An experience of the U.S. Office of Education illustrates the difficulty in finding the best mixture of subsidy and property rights for information creation and distribution. With the intention of promoting the widest possible distribution of the research it had sponsored, the Office of Education decided in the late 1960's not to permit any private publisher of the research to assert a copyright in it. But the Office of Education found that under those conditions so few publishers were interested in publishing the research, that it had to rescind the policy after about five years. This experience seemed to show that private publishers will ordinarily want or need exclusive rights before bringing a government text to press.

Marketing Patented Inventions

The recent debates over government patent policy have also shown that the subsidy and property rights approaches to the creation and protection of intellectual property do not comfortably interrelate. On the one hand, some federal officials have taken the position that the Federal Government should own the rights to any inventions developed under a grant or contract as a matter of course, so that members of the public, who as taxpayers have already helped finance the inventions, should not have to pay for them twice. On the other hand, the government lacks the ability of university or research laboratories to commercialize complex devices and processes, and bring them to the point of marketability. The government manages to license less than four percent of the patents it holds. H.R. 6933 addressed this situation by establishing a uniform government patent policy. As an Administration bill, it grew out of the Domestic Policy Review on Industrial Innovation.[26]

Certain limited patent rights could permit government contractors and grantees to carry on the necessary follow-up work to develop inventions to the point of marketability. To achieve this goal, twenty-eight Senators co-sponsored the University and Small Business Patent Policy Act, S. 414, to allow these institutions to retain patent rights as long as they develop the inventions into commercial products. On November 21, 1980, Congress passed H.R. 6933 under the title Patent and Trademark Laws Amendments, incorporating most of the provisions of S.414.[27]

New Technologies Limit Copyright's Effectiveness

The principal impact of new information processing and telecommunications technologies on information creation has been to make the policy choice between the promotion of property rights or subsidies more difficult for the Federal Government. An examination of the two principal difficulties which new technologies have created in the system of property rights shows why this is so. New technologies have both called into question the boundaries of copyright, and made it much harder to enforce exclusive rights. The difficulties of enforcing exclusive rights and protection boundaries have in turn tended to blunt the effectiveness of copyright, and to create a major new source of policy controversy around the production of information goods and services.

Qualifying for a Copyright

The digital computer has raised a cluster of problems regarding the constitutional definition of authorship. Can copyright subsist in computer programs, in semiconductor chips, or in works generated with the aid of a computer? And what of the possible future advent of a computing capacity describable as "artificial intelligence?" The National Commission on New Technological Uses of Copyrighted Works (CONTU) discussed all these questions, deciding that a valid copyright could subsist in a computer program. Furthermore, the use of a computer as a tool need not detract from the "copyrightability" of a work, as long as there is human involvement in, and in control of the process.[28] Technological advances have been causing copyright problems for over a century, as CONTU pointed out. But questions such as whether a computer program can constitute a work of human authorship, raise legal and policy issues not yet touched by court decisions on authorship in other technologies (for example, photography[29] or sound recordings[30]).

Computers, Chips Raise Legal Issues. Computer programs and semiconductor chips have both private and public goods properties. It may cost several hundred thousand dollars to develop a computer program, or a million for a semiconductor chip, but the cost of extra tape or silicon copies is trivial. Once software is released, it can be replicated readily and used without benefit to the creator. Unless private producers can find a way to make users pay, they will be unable to finance these projects. Because of this problem, CONTU recommended explicit copyright protection for computer software. This recommendation was supported by the American Bar Association Section on Patents, Trademark and Copyright Law and by the Advisory Committee on Industrial Innovation of the Domestic Policy Review.[31] H.R. 6934, introduced by Rep. Robert Kastenmeier to implement this recommendation, was incorporated into H.R. 6933, the Patent and Trademark Laws Amendments as passed by Congress last year.

Because the law of copyright has been unclear, software suppliers desiring to protect their products had relied primarily on nondisclosure clauses in licensing contracts backed up by state laws on trade secrecy.[32] Chip manufacturers have relied on simple lead time over imitative competitors. But trade secrecy obviously cannot protect the mass-marketed software for the prevalent home terminals and computers of the future, and the lead time of domestic chip manufacturers may be diminishing in the face of foreign competition. However, chip manufacturers have differing views concerning the benefits of copyright protection as a defense against foreign reverse engineering of American semiconductors. H.R. 1007, introduced in the 96th Congress, would have amended the copyright law to protect the electronic circuitry of these semiconductor chips.[33]

Qualifying for Patent Protection. The applicability of patent protection for computer software has also been in dispute. Numerous programmers, or their employers, have filed claims for their works at the Patent and Trademark Office (PTO). The PTO has consistently opposed the protection of software, granting only a handful of the claims. The PTO has reasoned that patent protection would be inappropriate, especially for the algorithm or iterative computational routine that comprises the core of a program, due to its quasi-mathematical character. In addition, the PTO asserted it would have great difficulty in searching the prior art in the area to establish whether a claim could meet the statutory standards of invention: novelty, utility, and non-obviousness.[34] In three instances, turned-down programmers won reinstatement of their claims by the Court of Customs and Patent Appeals, only to have that decision reversed by the Supreme Court.[35] In no case, however, did the Supreme Court go so far as to say that patent claims based on, or incorporating, software were categorically invalid. Most recently, in the fourth (and so far) last case, the Court upheld a patent claim for a manufacturing process which relies on a special-purpose computer program, although it said that a program could not qualify for patent protection by itself.[36] The PTO will now be obliged to treat the 3,000 software patent claims before it as acceptable subject matter for patent protection, and proceed to assess their novelty, utility, and lack of obviousness relative to existing programs.

Ease of Reproduction Makes Enforcement Harder

Recent technological advances have, for the first time, placed in the hands of the general public the means of easy reproduction of copyrighted works. The photocopier and the tape recorder, video or audio, provide the leading examples of technology available to the public. Community antenna television (CATV) has also provided its users a means for appropriating the work of a copyright owner without having to make any payment for it (at least until the new copyright law established the liability of cable systems for the importation of signals).[37] New videotext systems, combining either telephone or broadcast transmission of data with television screen display, may offer similar possibilities for the invasion of property rights.

Enforcing Intellectual Property Rights. Enforcement of intellectual property rights has always been problematic, because it is so difficult to detect violations greatly removed in time and place; however, new technologies make the problem worse. These new technologies have wrought a fundamental change in the extent to which the general public has an identifiable stake in matters of intellectual property rights. The legal issues involved are old, but the social and policy issues are new.

For example, cable television posed a simple but vexing problem. Does a secondary transmission constitute a performance subject to copyright protection? This question differed little from that posed by a 1931 Supreme Court case dealing with the copyright liability of a hotel which piped music broadcast over the air into its guest rooms.[38] The hotel was held liable, and cable television stations might have been held similarly liable, were it not for judicial concern over disrupting the economic basis of a young and sometimes struggling industry.[39]

Interpreting the "Fair Use" Doctrine. The legal issue always involved in enforcement of a copyright, however, is the interpretation of the old judicial, and now statutory, doctrine of "fair use."[40] Courts have interpreted fair use on an *ad hoc* basis, generally invoking the doctrine when the author's interest is relatively small. In such cases the doctrine has frequently been interpreted in favor of the public's fair use of the material, rather than permitting the author (or his assignee) to require permission or payment, or both, for the use of his work. For lack of anything better, this vague doctrine has been invoked to cover large-scale library photocopying[41] and video taping off the air.[42]

There have been heated and confused debates over the applicability of the "fair use" doctrine, because it does not easily fit the new circumstances resulting from the great increases in reprographic capabilities. Rather than additional exceptions to an old set of rules, the situation may call for a revised set of rules.[43] In the past, "fair use" has not been held to permit copying of an entire work, especially when this cuts directly into the market for sales. But now technologies like videotape enable users to avoid enforcement of copyrights by owners. With a videotape recorder it is possible to copy an entire program from TV at little cost and without being discovered.

Congressional action may be necessary here to make such videotape recording legal. If not, the doctrine of "fair use" either will have to be interpreted in a wholly new way, or there will be widespread copyright violations.

Questions about Reproducing Copyrighted Works. The ease of reproduction provided by several new products raises novel questions about the behavior of consumers of copyrighted works. These questions need to be addressed in determining new copyright policy:

1. If library patrons do not have access to photocopiers, will they take longhand notes instead, or will they purchase an extra copy of a work?
2. If college students can not put together groups of photocopied readings, will they forego the readings, purchase more copies, or read copies on the shelves at the library?[44]
3. If library resource-sharing networks face limitations on the number of photocopies they can make for local patrons or for interlibrary loan, will they buy more journals and books?
4. If television viewers at home cannot make videotapes off the air and keep them, will they buy tapes or videodiscs distributed under authority of the copyright owner instead?
5. If television viewers can watch distant (or even near) channels brought in by cable, will they watch local channels less? Will stations be able to adjust their advertising rates accordingly?[45]

The answers to such questions are critical to understanding the extent of damage to the interests of copyright owners in these instances. and consequently the need for remedial measures.

Technological Effects on Copyright. Whether or not these questions are answered, the new technologies which affect copyright proceed apace. Just as the transition from analog to digital computers affected copyright, so will the shift from analog to digital devices affect copyright for the cluster of preprinting functions. These include, for example, dictation, word processing, and photocomposition. The copyright law appears to make adequate provision for the coverage of any works in digitized form:

> Copyright protection subsists . . . in original works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device."[46]

Copyrights, it appears, will have to be enforced at the point of conversion to digital or other sophisticated forms. The protection of intellectual property, like the protection of personal privacy, may become a criterion for a new systems design. Once works of authorship encoded as electronic signals are recognized and tagged, the author's rights can be recognized and protected in subsequent variations and rearrangements of the materials.

Conclusion

The net effect of technological innovations on the choice between property rights and subsidies, and on the attempt to coordinate them to facilitate information creation and distribution, remains unclear. By creating confusion in property rights, new technologies may impart a short-run advantage to subsidies. Subsidies are immune to the twin problems caused by technological innovations: new products which do not easily fit into traditional legal categories, and new ways to invade property rights.

However, greater reliance on subsidy implies substitution of federal judgment for private judgment as to which projects are the most worthwhile. While this change may appear harmless, or at least neutral with respect to certain kinds of scientific information, the reduction of the number of independent editorial viewpoints could raise serious concerns. Just as the First Amendment makes almost completely unrestricted expression possible, copyright gives expression a chance to be economically viable. Government subsidies would not serve either of these goals.

Therefore, a momentous decision to rely more on subsidies and less on property rights seems unlikely. Private producers may be expected to respond to the legal confusion by placing greater reliance on trade secrecy than would be the case if intellectual property rights were more clearly specified and enforceable. If greater reliance is placed on secrecy, society will face an added burden from the resources diverted to prevent others from learning trade secrets, when those same funds could be used in a more creative and beneficial manner. More importantly, the solution to rely on secrecy contradicts the broad goal of open access to information, a concept discussed at length in other chapters of this paper. Thus, it is doubly urgent that we clarify the property rights which prompt the creation and the publication of valuable information.

Notes

[1] However, the government may own a copyright by assignment or bequest. See 17 *U.S. Code Annotated*, Section 105 (1977). The statute does not specify, and case law does not address whether the government may retain any rights in information developed for it by a contractor. The only existing statutory exemption permits the National Bureau of Standards to claim a copyright in some circumstances under the National Standard Reference Data Act. See 15 *U.S. Code Annotated*, Section 290 (1977). A special provision permitting the National Technical Information Service to claim a five-year copyright was considered, but rejected, in the 1976 copyright revision bill.

[2] The new copyright law abolishes the distinction between published and unpublished works and preempts other rights to the extent that they are equivalent to copyright. See 17 *U.S. Code Annotated*, Sections 302 and 303 (1977). Hence, the applicability of common law is now greatly reduced.

[3] U.S., Congress, House, H.R. 6933, The Patent and Trademark Laws Amendments (Public Law No. 96-517), passed by Congress 21 November 1980, for the first time provided explicit federal copyright protection for computer software. Section 10 of that bill amends the Copyright Act to include computer programs as protected subject matter and defines the scope of rights. See U.S., Congress, House, *Congressional Record*, 96th Cong., 1st sess., 1979, H. 11170-5. The protection of computer programs had been in doubt, because it had rested on language in the House Judiciary Subcommittee Report on the Copyright Revision Bill. See U.S., Congress, House, Committee on Judiciary, *Report on the Copyright Revision Bill*, 94th Cong., 2d sess., 1976, H. Rept. 94-1476, p. 54). The statute itself mentions software only in the language which carried over the old, unclear rights into the new law. See 17 *U.S. Code Annotated*, Section 117 (1977). The *Register of Copyrights* has accepted software for registration since 1965 under the policy of resolving doubts in favor of applicants (See Copyright Office Circular 31D, January 1965). The recent court case testing the ability to copyright software, *Data Cash Systems, Inc. v. S J & A Group, Inc.*, 480 F. Supp. 1063, N.D. Ill. 1979, does not entirely dispose of the issue. The court held that copyright could subsist in a listing of steps in high-level language that a person could read and understand directly. However, copyright would not protect a program in a silicon chip or read-only memory (ROM) embedded in a machine. Data Cash Systems used such chips in its hand-held, chess-playing computer called Compuchess. See "The Law Turns a Blind Eye to Computer Copyright," *The Economist*, March 1980, p. 93.

[4] Since copyright does apply to fine arts such as sculpture and choreography, one cannot say that all works protected by copyright consist of information, at least not in any ordinary sense. Copyright is now so broad that its coverage defies characterization, except by reference to the statutory standard of "works of human authorship." This chapter will nonetheless refer to copyright and information products in a shorthand way.

[5] The only states which have recently legislated copyright-like protection have been California, Washington and Oregon; similar legislation is pending in Iowa. In *Goldstein v. California*, 412 U.S. 543 (1973), the Supreme Court denied a challenge to the state law regarding "pirated" sound recordings made *before* federal protection became effective in 1972. Any state law on sound recordings first made after February 15, 1972, would now be preempted. California's Resale Royalties Act, California Civil Code, Section 986, providing that five percent of any amount in excess of $1,000 paid for a tangible work of art be paid to the artist, has been held not preempted by the Federal Copyright Act in *Morseburg v. Balyon*, 201 *United States Patent Quarterly* 518, No. CV 77-2410 C. D. Cal. (1978). The court found the California law's purposes in harmony, rather than in conflict, with those of the federal law. The federal right to vend or sell ends with the first sale, which is the point at which the state rights begin. The California statute was found constitutional also on grounds of contract law and due process, but the court did not deal with the question of whether the provisions regarding out-of-state transactions by California residents constituted an unacceptable burden on interstate commerce. Washington has a similar law. Oregon has a law making the unauthorized production or sale of videotape recordings of motion pictures a misdemeanor. See Oregon Revised Statutes, Chapter 164, Section 2.

[6] The copyright law makes it clear that ownership and conveyance of intellectual property rights are divorced from ownership and conveyance of tangible objects such as books. See 17 *U.S. Code Annotated*, Section 202 (1977).

[7] The Advisory Subcommittee on Patent and Information Policy of the Advisory Committee on Industrial Innovation, as part of the Domestic Policy Review, has made three recommendations to improve the flow of patent information. The Subcommittee has urged the Patent Office to institute computerized search and retrieval, develop comprehensive classification and indexing, and require more information to be submitted with patent applications. See the ***Final Report of the Advisory Committee on Industrial Innovation***, September 1979, pp. 117-199 (for sale by the Superintendent of Documents, Washington, D.C., 20402, Stock No. 003-000-00553-4).

[8] In the leading case of ***Baker v. Selden***, 101 U.S. 99 (1879), the Supreme Court denied the validity of a right claimed in an accounting system which employed the now-universal T-accounts. While the author could not prevent the use of his system, he continued to hold a valid copyright in his book, which described and explained it. In addition to copyright protection, a proprietor may rely on the law of unfair competition, which prevents the misappropriation of the fruits of one's labor by another. See *International News Service v. Associated Press*, 248 U.S. 215 (1918).

[9] The late Senator John McClellan, Chairman of the Senate Judiciary Subcommittee on Patents, Trademarks, and Copyrights, sponsored numerous but unsuccessful attempts to codify trade secret law. The Trade Secrets Act, 18 *U.S. Code Annotated*, Section 1905 (1977), which forbids the disclosure of confidential information held by the Federal Government, employs but does not define the term "trade secrets."

[10] 4 Restatement of Torts, Section 757, comment b (1939). The Supreme Court has recognized this definition as "widely relied upon." See *Kewanee Oil Co.* v. *Bicron Corp.*, 416 U.S. 470, 474-75 (1974).

[11] *Ibid.*, comment a.

[12] This paper makes a clear distinction between the confidentiality which may be claimed by businesses to protect proprietary information or trade secrets, and the confidentiality which may be claimed by individuals to protect their personal privacy. The first is a property right, and hence an article of commerce, which has an economic rationale. The latter is an civil right necessary to defend the psychological integrity of the individual citizen. For a full treatment of personal privacy, see the chapter discussing fair record-keeping.

[13] Nonetheless, the Federal Government, when entrusted with confidential information from the private sector, may have difficulty making this distinction. Exemption 4 of the Freedom of Information Act (FOIA) in 5 *U.S. Code Annotated*, Section 552(b)(4)(1977), which provides that agencies may decline to make commercial information available in response to an FOIA request, does not require them to withhold the information. More than half of FOIA requests have been attempts by businesses to discover confidential information of value to them. After much litigation and controversy about Exemption 4, the Supreme Court held, in ***Chrysler v. Brown***, 441 U.S. 281 (1979), that substantive protection for commercial information held by the Federal Government resides in the Trade Secret Act, 18 *U.S. Code Annotated*, Section 1905, and not in the FOIA, a law designed to prompt disclosure. Following this decision, Senator Robert Dole introduced a bill, S. 2397, to establish notification and appeal procedures for the submitter of confidential information in the event of a request for it, to make Exemption 4 mandatory, except in certain circumstances, and to replace the judicial standard of "substantial competitive harm" with a standard of what information is customarily released by the submitter. See U.S., Congress, Senate, *Congressional Record*, 76th Cong., 2d sess., 6 March 1980, pp. S2317-2319.

[14] This is not to say that the terms of copyright should be weak or that nondisclosure agreements regarding trade secrets should not be upheld. Incentives derive from the general provisions of protection and their enforceability, so that individual violations do not measurably affect the existing level of incentives to produce. The social value derived from a work would be diminished by infringement only in the rare, interesting case in which the information's value to those who rightly hold it drops so sharply that it more than offsets the unlawful gain to others. The misappropriation of the AP's World War I dispatches by the INS may provide such an example; see *International News Service v. Associated Press*, 248 U.S. 215 (1918). In most cases in which wider possession of information degrades its value for the few who originally held it, wider possession leads to more efficient economic results, as in commodities markets and mineral deposits.

[15] 17 *U.S. Code Annotated*, Section 504 (a) and (b) (1977). If the plaintiff cannot prove the amount of lost profits, then the court, upon finding that infringement has indeed occurred, will make an award of money damages in a statutorily-specified range. See Section 504(c). The losing defendant may also be assessed court costs, reasonable attorney's fees (Section 505), and may be ordered to destroy infringing copies and yield up printing plates for impoundment. Except in the case of infringement done willfully and for profit—that is, commercial competition with the copyright owner—infringement of copyright remains, however, only a civil offense. See Section 506.

[16] A theft of hoarded property would provide an interesting but infrequent exception

[17] Laws making offenses against tangible property crimes have almost always been passed for the purpose of deterrence. Victim compensation has been a much more recent concept, and applies to crimes against the person as well as crimes against tangible property.

[18] President's Reorganization Project, Federal Processing Reorganization Study, *Final Report of the Science and Technology Team*, Section B (December 1978).

[19] 39 *Federal Register*, vol. 224, p. 40611 (19 November 1974).

[20] *FASB Status Report* No. 85, including FASB Statement No. 2 and Interpretation No. 6 of FASB letter of 13 February 1979, to Association of Data Processing Service Organizations (ADAPSO).

[21] "This Circular (A-76) establishes the policies and procedures used to determine whether needed commercial or industrial type work should be done by contract with private sources or in-house, using government facilities and personnel . . . . In a democratic free enterprise economic system, the government should not compete with its citizens . . . . It has been and continues to be the general policy of the government to rely on competitive private enterprise to supply the products and services it needs." (Revised March 29, 1979)

[22] Books and movies provide the most common examples of imitation of successful copyrighted works. Following Professor Samuelson's outstandingly successful text, there are now almost 100 basic college economics texts. The enormously popular movies *Star Wars* and *Animal House* have spawned television shows like them, one so similar—*Starship Galactica*—that it may well infringe on the original copyright. See *Twentieth-Century Fox v. MCA, inc., Universal City Studios, and ABC*, Docket No. CV 78-2437-IH, Central Dist. Cal. (June, 1978). On August 22, 1980, the court granted ABC's motion for a partial summary judgment.

[23] Francois de Combret, the top French presidential economic adviser, admits, "A bureaucrat like myself, with his butt in a chair all day long, does not know enough to make all economic decisions. Those who know what to do are the ones who have skills, the ones willing to take the risks." See Francois de Combret, "Is Capitalism Working?" *Time*, 21 April 1980, p. 43.

[24] William J. Baumol and Janusz A. Ordover, "Private Financing of Information Transfer: On the Theory and Execution," *Proceedings of the American Society for Information Science*, 13 (1976).

[25] See the *Final Report of the National Commission on New Technological Uses of Copyrighted Works* (available from the Superintendent of Documents, Washington, D.C., 20402, Stock No. 030-002-00143-8).

[26] See the *Final Report of the Advisory Committee on Industrial Innovation*, September 1979, pp. 117-199 (for sale by the Superintendent of Documents, Washington, D.C., 20402, Stock No. 003-000-00553-4).

[27] U.S., Congress, House, *Congressional Record*, 96th Cong., 1st sess., 21 November 1979, pp. H 11170-75, Public Law No. 96-517. Sponsoring federal agencies would be able to use the inventions without paying royalties, and the patent owners would be required to pay some royalties to the government if the invention were financially successful. Sponsoring agencies could keep the patent rights themselves under "exceptional circumstances" but would have to notify the Comptroller General. Large businesses' patent rights would be reviewed on a case-by-case basis. The companion measure, H.R. 2414, sponsored by Rep. Peter Rodino and Rep. Don Edwards, was merged into H.R. 6933, the bill that was passed.

[28] See the *Final Report of the National Commission on New Technological Uses of Copyrighted Works* (available from the Superintendent of Documents, Washington, D.C., 20402, Stock No. 030-000-00143-8).

[29] *Burrow-Giles Lithographic Co. v. Sarony*, 111 U.S. 53 (1884).

[30] *Goldstein v. California*, 412 U.S. 546 (1973).

[31] See the *Final Report of the Advisory Committee on Industrial Innovation*, September 1979, pp. 117-199 (for sale by the Superintendent of Documents, Washington, D.C., 20402, Stock No. 003-000-00553-4).

[32] Richard I. Miller, et al., *Legal Protection of Computer Software: An Industrial Survey* (Boston: Harbridge House, 1977). (Research sponsored by CONTU; available from the National Technical Information Service, order no. PB 283 876).

[33] U.S., Congress, House, Committee on the Judiciary, Subcommittee on Courts, Civil Liberties and the Administration of Justice, Hearing on H.R. 1007, 96th Cong., 1st sess., 16 March 1979. H.R. 1007, introduced by Rep. Don Edwards and co-sponsored by Rep. Norman Mineta, would have afforded copyright protection for imprinted design patterns on semiconductor chips. The Copyright Office favored the bill with some clarifications, but industry representatives were divided at the hearings. Opponents feared that copyright protection would do nothing to stop foreign imitators, while making illegal the reverse engineering which has made progress so rapid in the domestic industry. See "Attorney for Copyright Office Urges Protection of Semi Chips" and "Not All Chip Makers Favor Copyright Protection," *Computerworld*, 30 April 1979, pp. 49-50.

[34] 35 U.S. Code Annotated, 101 and 102.

[35] *Gottschalk v. Benson*, 409 U.S. 63 (1972) *Dann v. Johnston*, 425 U.S. 219 (1976); and *Parker v. Tilook*, 437 U.S. 584 (1978).

[36] *Diamond v. Diehr*, 49 *U.S. Law Week*, 4194.

[37] 17 *U.S. Code Annotated*, Section 111 provides for a system of compulsory licensing with statutorily-fixed fees which may be adjusted by the Copyright Royalty Tribunal, which was also established by the new law. This limited liability applies only to non-network programming.

[38] *Buck v. Jewell-LaSalle Realty Co.*, 283 U.S. 191 (1931). The Compulsory license provision has the effect of superseding this decision. See 17 *U.S. Code Annotated*, Section 111 (a)(1), and U.S., Congress, House, Committee on the Judiciary, Subcommittee on Courts, and Liberties, and the Administration of Justice, Report on 5.22, 94th Cong., 2d sess., 3 September 1976, pp. 86-7.

[39] *United Artists Television, Inc. v. Fortnightly Corp.*, 392 U.S. 390 (1968); *Teleprompter Corp. v. Columbia Broadcasting System, Inc.*, 415 U.S. 394 (1974).

[40] 17 *U.S. Code Annotated*, Section 107 limits exclusive rights in the statement: "The fair use of a copyrighted work . . . for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research, is not an infringement of copyright. In determining whether the use made of a work in any particular case is a fair use the factors to be considered shall include:

(1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;

(2) the nature of the copyrighted work;

(3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and

(4) the effect of the use upon the potential market for a value of the copyrighted work."

There is no need for acknowledgment. Hence, fair use permits what plagiarism forbids. An unattributed lifting of a passage of text would violate academic canons but might or might not violate civil law.

[41] *Williams & Wilkins Co. v. United States*, 487 F.2d 1345 (1973), 420 U.S. 376 (1975). A four to four split by the Supreme Court had the effect of upholding the ruling of the U.S. Court of Claims that the photocopying practices of the National Library of Medicine could be excused as a fair use. The Library operates a Medical Literature Analysis and Retrieval System (MEDLARS) in which it makes and sends out many photocopies of articles in medical journals.

[42] *Universal City Studios and Walt Disney Studios v. Sony* 480 F. Supp. 429, C.D. Cal. 1979); on appeal in the U.S. Court of Appeals for the Ninth Circuit, No. 79-3683. Under the doctrine of fair use, the Court held that citizens owning Sony Betamax videotape recorders may make and keep, for their own personal use, tapes of entire copyrighted programs, and movies broadcast at no charge to the viewer. Off-the-air videotaping by educational institutions and libraries has been an unresolved copyright issue for longer than taping by private citizens. The House Judiciary Subcommittee on Courts, Civil Liberties, and the Administration of Justice convened a meeting on March 2, 1979, to resolve the problem. See the Judiciary Committee print, "Off-Air Taping for Educational Use," Serial No. 6, 2 March 1979, and see the account in *Information World*, 1, no. 3 (April 1979), pp. 6-7.

[43] In particular, the controversy over the legality of library photocopying practices under fair use was so protracted that Congress enacted Section 108 of the new copyright law 17 *U.S. Code Annotated*, to make special exemptions for such copying.

[44] Seven publishers, supported by the Association of American Publishers, filed a copyright infringement suit against the Gnomon Corp. of Cambridge, Massachusetts, which operates seven photocopying outlets near college campuses, for the preparation of such anthologies without authorization. In the consent decree with the publishers, Gnomon agreed not to make multiple copies of any printed material protected by copyright. See *Basic Books, Inc. et al. v. Gnomon Corp.*, Order and Final Judgment in U.S. District Court of Connecticut, 20 March 1980.

[45] Federal Communications Commission staff compiled evidence showing that broadcasting stations would not be greatly harmed by the removal of FCC rules prohibiting cable television systems from rebroadcasting some signals. See *Inquiry into the Economic Relationship Between Television Broadcasting and Cable Television: Report Before the Federal Communications Commission*, Adopted 25 April 1979, Docket No. 21284. Persuaded by this evidence, the Commission voted four to three on 22 July 1979 to remove the FCC rules preventing the rebroadcasting of some signals by cable television firms; but it appeared that several groups would immediately appeal the decision to prevent its promulgation. See "FCC Now All But Out of the Cable Business," *Broadcasting*, 99, no. 4, (28 July 1979), 25-27.

[46] 17 *U.S. Code Annotated*, 102.

Chapter VI

Managing Information

By Jane H. Yurow, Aaron B. Wildavsky, and Stanley Pogrow

This chapter examines some significant problems involved in managing information—the process of converting data, or data bits, into information, or messages that are meaningful to users. The management of this process involves organizing the physical flow of data from collection through storage and retrieval.

An information system is a system which contains data in a retrievable form, including library shelves, file cabinets, computer software, and telecommunications conduits. The focus of this chapter, however, is on management information systems (MIS), that is, systems within organizations which provide data on a regular basis for conversion into information to support effective decision-making.

The management of data from collection to retrieval is significant, both because of its centrality to decision-making and problem-solving, and because of its considerable economic cost. In the Federal Government alone, estimated expenditures for data processing in fiscal year 1981 are 6 billion dollars. That figure includes commercial services, capital investment and equipment rental, and personnel.[1] The Department of Defense, between 1979 and 1981, will have a 502.1 million dollar increase in expenditures on data processing.[2] The collection of data to run federal programs costs a lot of money, although the exact amount is difficult to calculate. The Commission on Federal Paperwork (CFPW) estimated in 1977 that the Federal Government spends from 25 to 30 billion dollars annually on data collection and paperwork.[3] One private company, Kaiser Industries, in a 1975 study, determined that it spent $4,540,000 responding to federal data collection requirements.[4]

The discussion in this chapter applies to the private sector and to state and local government information management, as well as to the Federal Government. However, while the problems are described generally, most of the illustrative material focuses on the Federal Government.

Need to Organize Federal Data. There is a need within the Federal Government to address the issue of how to structure the collection, storage, and processing of data in a more rational way. Effective procedures are those which facilitate the conversion of data into information and make information available in a timely, cost-effective manner. There is also a need for the Federal Government to address information management concerns, and to examine the effectiveness of the significant federal statutes which address these problems.

Traditionally, federal policy has not attempted to oversee the internal information management decisions of other sectors. In state and local matters federal jurisdiction has not generally extended to solve problems such as information management, any more than it directs state and local personnel selection, or decisions regarding eligibility for benefits. Of course, the boundaries between the private and public sectors, as well as between federal, state and local government, are becoming increasingly blurred, as cooperative arrangements, subsidies to each of these sectors, and contracts for services become a regular part of the operation of the Federal Government. Then too, legislation authorizing Federal Government access to the records of the other sectors, or a federal role in the program operation or decision-making processes of these sectors, may create a federal interest in overseeing aspects of information management in other sectors.

Data, Information and Decision-Making

The wide availability and accessibility of information are considered to be invaluable aids to intelligent participation in society. The purpose of effective information management is to direct appropriate, high quality data to users as they need it for making decisions.

Organizations and individuals have an inherent need to condense data in order to digest and convert it into information. In this process, organizations screen out most data, absorbing only what has value to them. The very

The views and conclusions contained in this chapter reflect those of the authors, and should not be interpreted as necessarily representing the official policies or recommendations of the National Telecommunications and Information Administration, the U.S. Department of Commerce, or the U.S. Government.

structure of organization—its levels of hierarchy—enforces the need to reduce data to manageable proportions.

At present, the time span from the moment requests for decisions or reports are received to their achievement or completion is decreasing dramatically, while the amount of data available is increasing. According to Herbert Simon,[5] this situation creates a diminution of human attention in addressing given concerns proportionate to the amount of data available. People do not have the capacity to digest all the relevant data that might be useful in decision-making, report writing, or research. Furthermore, they do not usually have time to seek out resources not readily available, even though the sources may contain highly relevant information.

Management Information Systems (MIS). The rise of modern management information systems (MIS)—the production of data on a regular basis in a manner intended to improve decision-making—has both alleviated and aggravated the dilemma inherent in having increasing amounts of data available and insufficient capacity within organizations to convert data into information. For simple tasks, involving clear goals and calculable resources, such as payrolls, the increasing capacities of computerized MIS have relieved organizations of much drudgery, and have increased productivity. When objectives are controversial or vague, the capacity to produce more data at lower cost per bit often has been a mixed blessing.

Over-Production of Data. Frequently, data is produced simply because it is possible and politically advantageous to do so. The ease and quantity of data production may add to the task of converting data to information. As the chance of excluding available data goes down, the probability of data loss or misinterpretation may go up. At the heart of the difficulties over MIS is the built-in tension between organizational incentives to filter information, which lead to restricting the flow of data, and those designed to increase the amount of data.

As there are more decisions to make, and more data about each of them with less time for assessment, decision-makers often become concerned that they may have missed something. Hence, they might rely on informal, often verbal, contacts. If decision-makers need to know quickly what available data is reliable and relevant, they will consult those around them. Thus, the increase in computing capacity in a complex, formal system may have the paradoxical effect of encouraging greater use of the informal apparatus.

Symptoms of Ineffective Management of Information

Information management is ineffective when data production, transmission, and retrieval occur without adequate concern for who will use data, in what form, for what purposes, and at what social and economic cost. Also, the inability of users to specify what information they want or use, may lead to ineffective management. Significant symptoms of ineffective information management include:

(1) Data glut and information scarcity—an over abundance of data that is unavailable in a useful format within a given time frame;

(2) Data redundancy—identical or generic repetition of data in systems available to the same group of users;

(3) Faulty Data—data that is inaccurate, incomplete, out-of-date, or otherwise flawed;

(4) Burdens on information providers—results of a failure of those collecting data to identify what those who use the data may need, and whether it is already available to them in usable form; and

(5) Excessive costs.

Data Glut and Information Scarcity

The safety of a pilot receiving signals from an FAA control tower is jeopardized when, as sometimes happens, too much data is communicated. He needs precise data at the right time, as he frequently is not in a position to check sources and evaluate conflicting signals when making a decision. A similar situation prevails in critical military decisions based on data transmitted from distant sources, and therefore not subject to ready authentication.

The Office of Management and Budget's Federal Statistical System Project has reported that as the present decentralized statistical system has grown in size and complexity, "a growing incidence of overlap, duplication, mismatch, and gaps in data and analysis has occurred in federal data, resulting in increasingly complex problems of access by users and statistical agencies." The consequences cited include inefficient use of statistical systems, and underutilization of data contained in these systems.[6]

Need to Convert Data to Information. As the statistical system example indicates, information scarcity is closely related to data glut. Amid the plethora of available data, it is frequently difficult for a particular user to find the specific data he needs, even after a reasonable search. The quality of indexes and abstracts varies, the person who "knows" may be difficult to identify, or the critical book may be missing from the library shelf. Often management information systems require highly trained people both to program and to retrieve information, thus inhibiting the ability of the average person to use them. In addition, users frequently have poorly defined notions of what data they need and of how to get it.

The inability of information systems managers to keep up with the potential capacity of technology for delivering appropriate data to users is a significant roadblock in alleviating the symptoms of data glut and information scarcity. Federally maintained and funded data bases, in particular, may not be sufficiently flexible to meet contemporary user requirements—such as translation of scientific and technical information into forms usable by political decision-makers or ordinary consumers (i.e., use for nontechnical purposes). This rigidity may be due either to rapid changes in circumstances that no one can predict, or to inadequate original specifications that should have been anticipated. The use of outdated computers, which require greater manpower to adjust the operation of routines, further exacerbates the situation.

Wider Range of Data Needed. Traditionally, scientific and technical information has been disseminated through discipline-oriented or mission-oriented programs. For example, information on physics or chemistry is found in the journals of these disciplines, or in data bases maintained by and for physicists or chemists. Fifteen years ago there was a move toward organizing data by the mission of the particular federal program. Thus, if the mission was to put a man on the moon, information transfer would be organized to provide data concerning how to accomplish the mission. Today, however, many users need data from a variety of disciplines to understand or to resolve broad social or political problems, and there is a serious scarcity of information to resolve these problems. This is partly the result of inadequate dissemination of available material. But also, there is data which users cannot readily convert into information.[7]

Problem of Data Over-Collection. Another phenomenon, over-collection, gives rise to an overabundance of data to be managed. The ease with which the Federal Government can collect and store data frequently leads agencies to build up large data bases without adequate evaluation of real information needs. Computers facilitate this because they store, process, and prepare data for ready retrieval. Generally, persons and organizations either desiring a benefit from a federal program or required by law to provide certain data bear the burden of this excessive collection. According to the Commission on Federal Paperwork,[8] federal officials collecting data have little incentive to limit its collection because they look upon it as a "free good." "Because of this vagueness of goals and objectives, plus the easy availability of computers to handle massive amounts of data," the Commission concludes, "there is the temptation on the part of the government to collect all possible data just in case they might be needed at a Congressional authorization, appropriation, or oversight hearing . . . There is a glut of irrelevant, obsolete, and inaccurate data produced by the computer which is clogging communications channels."[9] It is, after all, difficult to determine what will be useful before rather than after the fact.

Data Redundancy

Some data in federal management information systems is redundant. For example, one part of an agency may not know that another part is collecting the same data. The Commission on Federal Paperwork indicates [10] that those who manage government programs, frequently unable to find data stored in existing MIS, feel compelled to collect identical or generically similar data over and over again from the same providers. According to the Commission, "The problem is that the government does not know what information it collects, with what frequency, from whom, and for what purposes." The report lists forty federal agencies that collect energy data alone, and indicates that there are many data bases that overlap.[11] Apparently, agencies rarely go to other agencies for data needed in the course of program operation, and there is no mechanism to help them either determine if other agencies are gathering the data, or locate data that they need in the bases of other agencies.

The Commission on Federal Paperwork Report describes extensive examples of redundancy in federal record systems. Most information specialists would recognize that a certain amount of redundancy is necessary and convenient for users, because if data is identical, ease of access may not be. The General Accounting Office (GAO), however, reports a considerable amount of generic redundancy, as well as duplication in bibliographic data bases. GAO authorities believe that a major factor contributing to this duplication of data is the lack of cost recovery policies governing the personnel who operate the data bases. This lack of budgetary control provides little incentive to limit collection or find ways to share data. Federal laws establishing the authority of programs to collect bibliographic data generally offer little guidance as to what data to collect.[12]

Incomplete, Obsolete and Faulty Data

Data that is obsolete, inaccurate, or incomplete does not effectively serve the needs of users, even if it is readily retrievable. Although the same level of accuracy, timeliness, and completeness of data is not necessary for all purposes, defective data can be harmful to both providers and users. This type of error becomes particularly acute when a user must make an instantaneous decision which is likely to affect persons or events significantly. A good example is found in the case of an innocent man who, while resisting arrest, was killed by a policeman who had been given wrong data about the man through the FBI-operated National Crime Information Center network.[13]

With respect to statistical data, the OMB report indicates that the quality of data (including its accuracy, timeliness, and completeness) continues to be a major issue to be resolved by the federal statistical establishment. Frequently, agencies collecting and disseminating statistics do not know what the level or source of error in a given statistical system is.[14] It is likely that without criteria for managers to know what is wrong with data, they will not be able to supply right information to users.

What are the signals of erroneous data in management information systems? If management information systems are designed with unclear goals or goal conflict, data errors will become manifest. Then users will have to search out substitute sources of data within the organization. Characteristically, formal failure of MIS is followed by an informal or unauthorized practice to overcome breakdown of the system. Frequently, the formal failure of a management information system results in additional data requirements.

"Bootlegging" Shows Data Insufficiency. "Bootlegging" is a sure sign of system insufficiency. It indicates that information important to part of an organization is being denied, and is believed to be obtainable by unauthorized alterations. Instead of using the existing data on a card or tape, for example, this data may, illicitly, of course, be erased and replaced by new entries. Old data, presumably of lesser importance, is being replaced by new data of greater value. This bootlegging indicates either that data useful for the organization as a whole is not helpful for some of its parts, or more likely, that each of the parts is disadvantaged in terms of data for a hypothetical whole.

"Bypassing" the system signifies that the existing data apparatus is either too cumbersome or too inaccurate, or is otherwise inappropriate. As with bootlegging, bypassing the system is based on the supposition that the desired data exists elsewhere in a more convenient form. Bypassing the system raises the question of the need for a formal system at all, if the informal one does better at less cost.

"Paralleling" Data Systems. Perhaps the prime indication of management information system inadequacies is the existence of old systems "paralleling" new systems, supplying clandestine support for the standard display on the surface. It would be appealing to blame the existence of parallel management information systems on redundancy; this rationale would indicate that a secondary system is set up to step in when the primary system is terminated. If this were true, the parallel system would also be a public entity, acknowledged, accepted, and accounted for as a cost of reliability. Instead of publicity for the parallel systems, however, there is duplicity concerning their existence; instead of accountability on the part of those managing the information, there is secrecy. The reason underlying the creation of the parallel information system is the refusal to acknowledge the failure of the public system; thus the original system must be accompanied by a hidden system that duplicates its work. Often, the parallel system is a manual model that a new, automated system was designed to replace.

The ways in which errors enter management information systems are difficult to estimate or describe. MIS designers usually know little about what happens to data transferred from one level of an organization to another. The reasons for ignorance about the amount of error in MIS include inability to visualize, to calculate in advance, or even to recreate from observation, the data's course as it wends its way through a multi-unit, multi-level organization. It is also possible for information in MIS to return to its original status as data. Data that was once converted into information at several levels, for example, may be combined so that necessary detail is lost; thus, in effect, information is converted back into data. Or, if users are unable to gauge the system's error, they are no longer able to convert data into reliable information, and cease to have confidence in the system.

Burdens on Information Providers

Although requirements for information dissemination that are unnecessarily placed on individuals and organizations can lead to both glut and duplication of data, the phenomenon of burdensome reporting is worth discussing as a separate symptom of ineffective information management. Even if these requirements do not lead to other undesirable consequences, they place a heavy economic and social burden on information providers. It takes time (which is easily translatable into other resources) to fill out a morass of complicated, often duplicative, data on a variety of forms needed for numerous federal programs.

When officials in Federal Government agencies impose data requirements on private parties, they do not consider that the demands for data can be costly. Apparently, data is characteristically considered to be a free good. Since it is difficult to resist the temptation to be better informed, Congressmen, government agencies, and corporate executives frequently ask for more information without consideration of its value in economic terms.

Inadequate Laws on Data Collection. The laws that exist to encourage relevancy standards for collecting data are not entirely effective. The Privacy Act, for example, limits data collection to that which is relevant and necessary,[15] but does not define relevancy, leaving each agency to interpret the term according to its own interests. Evidence from the Commission on Federal Paperwork Report indicates that federal agencies have devoted limited resources to the effort of identifying data needs, and streamlining information requirements to meet these data needs, neither asking providers for less data nor developing the capacity to share similar data among agencies.[16]

The failure of federal agencies to deal with government data duplication is addressed in the Paperwork Reduction Act of 1980, which will substantially increase OMB's responsibilities for and authority over collection of data from the private sector. OMB will coordinate the collection process, determine the usefulness of data items, and enforce sharing of information among federal agencies.[17]

Excessive Costs of MIS

The true dollar cost of managing information is difficult to determine. In both private sector organizations and in government the cost of information handling is usually buried under figures detailing the cost of management in general, or else is absorbed in the program or mission budget items.

There are many considerations in attempting to put a dollar figure on information management—computer software, data collection, intellectual effort used to create information, transfer of information within an organization, library services, secretaries, telephone service, maintaining file systems, and dissemination, as well as the equipment used to maintain, produce, and transfer information.

In addition, it is difficult to balance these costs against benefits of information management. While some benefits are tangible and can be calculated—increased productivity within an organization resulting from better information, and increased profits or number of clients served—others are intangible and difficult to reduce to dollar figures. These intangible benefits of information management include better response to fundamental concerns about privacy and rights of access to information, and greater productivity in the community as a result of more effective access to information. The difficulty in measuring benefits may create a "Catch-22" situation, as the failure to "measure" benefits could result in less effective information management, and hence, less effective decision-making.

Concept of Information as a Free Good. It is difficult to put a cost on data production and use because of the attitude that information is a free good.[18] This attitude is particularly prevalent in government, despite the fact that in ordinary economic situations market decisions are based on sellers deciding what is worth receiving, and buyers deciding what they are willing to pay. Generally, these marketing characteristics are missing from the allocation mechanisms for data.

Most organizations treat data as overhead, in the category of light bulbs or toilet paper. A budget allocation is made to a data processing center, whose purpose is to produce data. Not surprisingly, the data processing center becomes very good at improving its performance; every year it produces more data. Its budget generally is based on the work it has performed in the past and the backlog of requests it cannot fill. The more unfulfilled requests the data processing center generates, therefore, the better its chance for more money. So producers of data for MIS are tempted to suggest all sorts of data they would provide if only potential users would make their needs known. The potential recipients of data in MIS are frequently unable to say whether they want the information, how much of it or how often, in what form, or whether they would rather do something else with the resources allocated to produce this data. In terms of opportunities foreclosed, these free goods can be very expensive.

Automatic Data Processing (ADP) Systems. Several recent federal reports have discussed cost concerns with respect to a major category of Management Information Systems, automatic data processing (ADP) systems. The Report of the President's Reorganization Project[19] extensively discussed the inability of the government to calculate ADP costs. The study found that "the lack of cost-awareness in data processing related decisions is a government-wide problem of major proportions." The study further found that it is necessary for the government to have reasonably accurate cost information for computer services before it can make any improvement in this area.

The GAO Report on Federal Automated Bibliographic Systems indicates that there are no general rules that agencies follow in deciding the cost of users (within and outside government) employing automated data bases to obtain bibliographic information. The General Accounting Office studied the activities of 38 information centers in five major agencies—the Department of Commerce, the Department of Energy, the former Department of Health, Education and Welfare, the National Aeronautics and Space Administration, and the Department of Defense—and discovered no pattern in the costing of information services. The General Accounting Office's general conclusion, however, was that the cost to the government of providing bibliographic information services is difficult to document accurately, and that the cost probably is not being recovered.[20]

Rising Costs of Data Processing. Of course, historically, the objective of improving users' ability to get the information they need readily and with precision has raised costs, as has the increasing use of new information technologies to achieve this objective. Recent costs for data processing in the private sector have been estimated at $26 billion a year, and at $15 billion in the Federal Government.[21] On the one hand, it has been argued that unless users both within and outside of the organizations generating information are made more productive by additional, better-targeted data, the investment in elaborate ADP and other data handling equipment could be very wasteful. On the other hand, new technologies have a great potential for improving organizational performance through better program decisions and increased administrative efficiency. Increased organization and efficiency could lead to greater profits in the private sector, and to better research, or more responsive services to clients.

Legislative Efforts to Encourage Effective Information Management

Although each federal agency has rules about information management, five statutes are particularly pertinent. Each of these statutes is implemented by regulations, and OMB bulletins or circulars. The five statutes are the Federal Reports Act, the Federal Records Act, the Brooks Act, the Privacy Act, and the Freedom of Information Act. As President Carter made paperwork reduction a priority for 1980 by his remarks in the State of the Union Address,[22] the legislation in this area has taken on special importance. Shortly before adjourning, the 96th Congress passed the Paperwork Reduction Act of 1980, which implements some of the recommendations of President Carter's address.

The Federal Reports Act of 1942

This law attempts to limit duplication in the collection of data by federal agencies and to reduce the reporting burden on private citizens and businesses. The Federal Reports Act of 1942 requires the government to minimize collection burdens and to eliminate duplicative information requests.[23] OMB is authorized to clear the reporting forms of Executive agencies other than independent regulatory agencies, and to investigate agencies' needs for and methods of obtaining information. The Office of Management and Budget can also designate one agency as the sole collector of certain types of information for two or more other agencies,[24] thereby requiring the sharing of this information.[25] In addition, OMB has the power to determine whether it is necessary to collect certain information at all, and can prohibit the collection or disclosure of information.[26] The General Accounting Office is given similar authority with regard to independent agencies.[27]

Implementing the Reports Act of 1942. There have been problems, however, in the implementation of the Federal Reports Act of 1942. Except for OMB Circular A-40 governing the forms clearance process, there are no relevant regulations or circulars. There have been no hearings to designate a central agency to collect information for other agencies. OMB has no documents listing data sharing arrangements among agencies, although it has informally investigated some of these and has sometimes used the less cumbersome budget process to enforce compliance. The Commission on Federal Paperwork (CFPW)[28] was troubled by OMB's focus on implementing the reporting forms clearance process (rather than on data collection in general), stating that this process provided the exercise of a clearance function that occurred too late in the collection process. The Commission on Federal Paperwork also criticized the split of authority between the Office of Management and Budget and GAO, and inadequate staff resources and tools for administering the Federal Reports Act. The report suggests that the introduction of new technologies and new management techniques into the information collection process calls for new types of legislation to control the flow of information.[29] The new paperwork reduction legislation centralizes authority over the entire federal collection process in OMB and addresses a number of the Commission on Federal Paperwork's concerns.

OMB's Data Organization Effort. The Office of Management and Budget contends that the heavy reporting burdens are primarily the result of bad regulations, confused organization, and flawed legislation.[30] In its Report to the President, OMB described the measures it has taken to "root out the causes of excessive reporting." The Office of Management and Budget indicates that it is conducting an aggressive program to get government officials to draft regulations that are clear to the public, and that enhance public participation. It has also reorganized the Civil Service Commission, studied the federal statistical establishment, and major civil rights programs, and undertaken the consolidation of data collection between the Internal Revenue Service and the Labor Department, a significant information collection effort required to implement the Employees' Retirement and Income Security Act (ERISA). The Office of Management and Budget cites the Commission on Federal Paperwork itself, with its extensive study of record-keeping in many federal programs, as significant evidence of concern about the nature of federal data collection.[31]

Reducing Federal Data Collection. Furthermore, in a memorandum to the President and Congress, dated October 30, 1978, the Director of the Office of Management and Budget indicated substantial reductions in federal data collection requirements during the summer of 1978. The reduction was calculated at 12.3 percent after the Carter Administration took office, including the elimination of 400 reports. The Office of Management and Budget also undertook oversight of Executive agency compliance with the Commission on Federal Paperwork recommendations, by requiring agencies to report improved practices to the Office of Management and Budget for a report to the President in the Spring of 1980.

The Federal Records Act

The purpose of this Act is to administer the federal archives, and to improve the creation, maintenance, and use of records by federal agencies. Through the National Archives and Record Service (NARS) of the General Services Administration (GSA),[32] the Act provides for inspection of agencies' record-handling practices, encourages the creation of record disposal procedures, and establishes records management programs within federal agencies. NARS oversees the provision of effective controls over the creation, maintenance, and use of records, and application of standards and techniques to improve records management and security.

However, even the effort to implement the Federal Records Act, a law whose objective is to improve the management of the vast numbers and types of records maintained by the Federal Government, may have questionable results. The Commission on Federal Paperwork identified several difficulties. The main problem is the split in authority between NARS and OMB (which administers the Federal Reports Act), a difficulty created mainly by the failure to define "record" and "report" so as to clearly ascertain which agency has authority over what types of documents or papers.[33]

NARS to Increase Records Efficiency. The National Archives and Records Service carries out its mandate to provide guidance and assistance to federal agencies in creating and maintaining record systems by distributing handbooks, conducting seminars, and reviewing individual agency record-keeping practices. The Paperwork Commission Report expressed concern that NARS may need to accelerate its efforts in this area drastically in order to keep up with the growth of federal record-keeping responsibilities and the impact of new technologies in record-keeping. Furthermore, the Commission considered that NARS, while doing a reasonable job in assisting agencies to increase management efficiency, has focused exclusively on government efficiency, while overlooking the impact of certain kinds of records management practices on the non-federal sector. In particular, the report recommended that NARS consider the private sector's requirements to maintain certain information for the benefit of federal agencies.[34]

After extensive review of NARS operations, the Commission was satisfied that NARS has begun to revitalize its program, particularly in regard to provision of program leadership, personnel development, training programs, workshops and coordination of training. Furthermore, NARS is apparently making an effort to involve high-level officials in federal departments in its program.[35]

The Brooks Act

The Federal Government is the largest user of automated data processing (ADP) in the world. The purpose of the Brooks Act is to provide for the efficient procurement of ADP and telecommunications equipment in the Federal Government. The Act encourages the use of competitive bidding for procurement of hardware as the principal mechanism for keeping prices down. Effective procurement through competition is to be reached through the combined oversight, standard-setting, and decision-making activities of three federal agencies—OMB, the Department of Commerce, and GSA. Each agency has expertise in an important facet of the complex process involved in helping agencies choose the most economical, efficient, and appropriate equipment for their particular needs.

The National Bureau of Standards in the Commerce Department sets standards, does research, and gives technical advice regarding ADP. The Office of Management and Budget exercises fiscal and policy control over the ADP effort, but does not interfere with agencies' determination of their individual ADP requirements. The General Services Administration approves the purchase of equipment.[36]

Difficulties in Enforcing the Brooks Act. Despite the intent of the Act to establish competitive procurement, evidence suggests that non-competitive procurement is the rule in the Federal Government today. The House Government Operations Committee's Subcommittee on Legislation and National Security, reported two basic reasons for this: poor ADP resource management, and lack of long-range planning. The Subcommittee believed it impossible for OMB and Congress to monitor the many agency requests for funds, which frequently are buried within line items for meeting substantive mission needs.[37]

The President's Reorganization Project Report blamed difficulties in enforcing the Brooks Act provisions for procurement of ADP on OMB's failure to provide authorized leadership, the failure of GSA to provide service and to expedite procurements, and the failure of the Commerce Department to provide technical expertise and to set standards. The Reorganization Project criticized the agencies which purchase and use ADP for their inattention to careful management of the information in their ADP systems.[38]

The report also listed some elements of improvement in ADP management including: good mission and program directors, the President's commitment to improved planning, the integrated information processing system project in the White House, and OMB's plans to clarify critical circulars relating to procurement—A-71, A-76, and A-109.[39] With the enactment of the Paperwork Reduction Act of 1980, which establishes a new Information Policy Office in OMB, a locus for consistent management decisions should then exist within the Executive Branch.

The Privacy Act of 1974

The Privacy Act contains several significant records management standards which require record managers to:

- Use or maintain personal information that is accurate, complete, timely, and relevant;
- Organize a system to identify and describe all of their record systems that contain personal data;
- Maintain personal data in systems with adequate security;
- Maintain a log of certain third-party disclosures; and
- Implement employee training programs.

From a privacy protection standpoint, records management requirements have at least two attractions. First, these requirements have a direct impact upon the record-keeping process by identifying and remedying record-keeping deficiencies that are likely to have an adverse impact upon individual privacy interests. Second, implementation of the requirements does not depend upon the record subject's interest or energy, but rather imposes direct obligations upon the record-keeper.

There are drawbacks to the records management approach to privacy protection. A significant difficulty is the need to create a mechanism to oversee the implementation and enforcement of these standards of records management. The Congress has been criticized, for example, because it did not create or designate an agency to direct implementation and enforcement of the Privacy Act. Although the Act gives OMB some oversight responsibility, the authority may not be sufficient to control agency compliance with records management standards effectively.

The Freedom of Information Act

The Freedom of Information Act (FOIA) formalizes public access to the written materials which the government maintains, whether these are collected from individuals and private sector organizations, or are generated within government agencies. Written material from the government comes in a variety of forms, including books and papers, memoranda, and computerized data bases. The bulk of written information held by the Federal Government is available to citizens upon proper inquiry. Its actual dissemination poses substantial information management problems.

Access to Federal Information. The FOIA recognizes three categories of federally maintained materials. The first category of materials (primarily those describing agency organization and the agency's substantive and procedural rules) must be published on a timely basis in the *Federal Register*. The second category of materials (agency adjudications, policy interpretations, and staff manuals and instructions that affect members of the public)